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Crime & Urban Parks
An Annotated Bibliography

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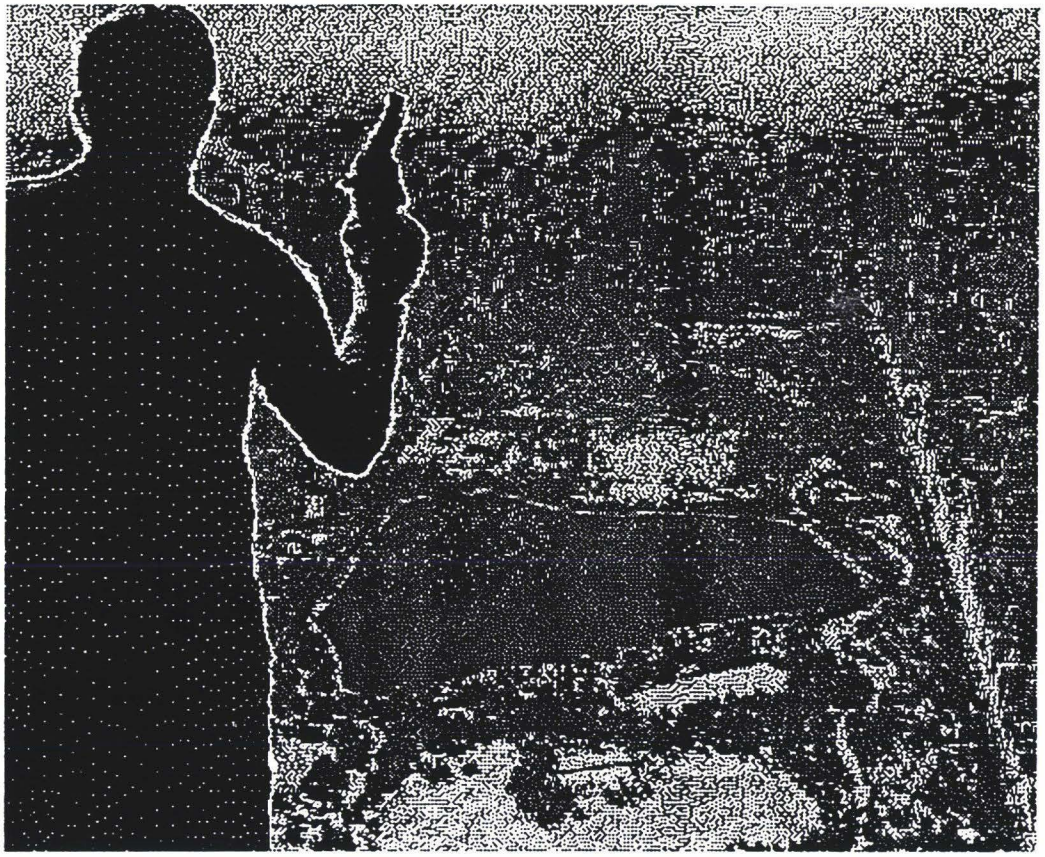

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Abstract

Recent research results explain why parks, especially those in urban settings, are valued by society. They also explain why crime in parks degrades this value. Users are likely to modify and/or reduce the time they spend recreating if the parks are perceived as unsafe. When users do recreate their experience and the benefits they gain are apt to be impacted by concerns for personal safety (e.g., fear; heightened awareness of surroundings and people; limitations on location, time and type of recreation).

Importantly the physical environment, while central to park users' experiences, may be modified in attempts to deter crime. The most notable example of setting modification has to do with vegetation. Because shrubs and trees can hinder views as well as restrict movement, they increase likelihood of crime. Whether vegetation in fact represents a danger to the public by changing crime is not certain, however what is clear is the way in which people respond to vegetation from a security perspective. Schroeder and Anderson (1984) and Shaffer and Anderson (1983), respectively, found that perceived safety fell as density of vegetation increased or uniformity of plantings decreased. This illustrates the potential conflict between presence of aesthetically pleasing plantings and reductions of environmental facilitator of crime. The latter studies brought out this conflict, however, each was published a decade ago and has sense seen little or no follow-up.

Park managers lack the data to make informed decisions regarding the safety/aesthetics balance. Without it they may respond to publicity of criminal incidents with actions which do not reduce the chances of repeat offenses. Their efforts may not only be ineffectual, but the overall effect may degrade the aesthetic, restorative park experience. For this reason it is important that there be an effective transfer of knowledge from other areas of criminology, areas which have developed theoretical histories and empirical study of criminal behavior. Hopefully such information could provide meaningful, accurate guidelines for the design and maintenance of out-of-door recreation areas.

The purpose of this annotated bibliography is to present and summarize some of the major works on crime prevention effected through manipulation of physical settings, specifically vegetation. It is updated regularly and current versions are available from the authors in print and/or disk format.

Introduction

The study of crime as it relates to and is affected by the physical environment, including the criminal and the victim, has grown to be a field unto itself since the early 1970's. When Oscar Newman presented the concept of 'defensible space' it opened a new door for criminology, synthesizing and making explicit concepts which dated back centuries (Estrella, 1988). This area of criminology has recently diversified into numerous sub-areas of inquiry. More specialized investigation has often lead to refutation of Newman's original postulations, none-the-less there are still adherents to his theories. And while the idea of the environment shaping the actions of criminals and the public–environmental determinism–today seems self-evident, verdicts on the myriad concepts explaining crime, safety and defensible space are still out. Particularly with regards to crime and recreation areas has the investigation thus far fallen short of providing salient findings about the environment's influence.

This bibliography aspires to share with experienced and inexperienced readers alike a cross-section of the body of research which is generally refereed to as Crime Prevention Through Environmental Design (CPTED). While a substantial portion of the available literature has been amassed, this bibliography is not exhaustive. Instead, it is focused upon research and publications which pertain to crime in recreation areas. Given the general lack of such works, the bibliography consists, for the most part, of relevant examples from related areas. For example, the effects of crime on park patrons is an important issue, but the lack of research in this area requires that general public responses to crime be examined. The result is a compilation of literature which does not usually address recreation or recreation areas per se, but which has direct applications to these topics.

Attention has been focused upon the most active research in the respective fields being represented. Some researchers–CPTED kingpins if you will–have numerous citations due to their significant contributions. These individuals, often as not, have been conducting research in their area for some years and are recognizable as some of, if not the authorities in their areas. In addition to attempting to categorize their niches, we have tried to annotate their most important pieces, noting the contributions to the present state of knowledge.

The references have been partitioned into two major sections. Section 1 will discuss the Environment. It presents literature pertaining to the effect of physical settings and their features on crime. Section 2 will examine the two primary groups of people under the influence of

crime; criminals and the public. It describes research findings that deal with the perceptions, attitudes and habits of each. These sections and their subsections seem most appropriate given the goals of this effort. However they represent one way in which to approach the field and there are other equally valid methods.

Unfortunately even these simple divisions may be problematic. There is a tendency to isolate one area to the exclusion of others. Consequently the reader can fall into the same trap which has often frustrated the study of criminology. All components of the setting–place, weather, people, etc.–are interrelated and influence the criminal process. No one element is the sole cause of the event or the criminal's decision to act. Brantingham and Brantingham (1993, p.22) note that "events transpire in an immediate site and situation that rests on or in a backcloth composed of uncountable relations between the physical, social, legal, cultural, economic and temporal environments." This interwoven character of all elements of crime is reflected in the overlapping nature of the works cited herein. Thus the reader who is unfamiliar with the field is presented with the challenge of examining the headings presented here while not forgetting that relationships, while still largely unclear, exist and fuse together the whole.

Crime Prevention Through Environmental Design

Criminology has a long tradition of trying to find simple solutions to the complex "whys" of crime. Brantingham and Brantingham (1993) discuss some of these efforts dating as far back as the 1700's. The 1970's brought on significant new questions, namely, whether the environment impacts crime. Not that this was an entirely new concept; from the time humans first sought to protect their surroundings, manipulating the environment has been a means for deterring attackers. One need only look at the world's architecture–China's Great Wall, Europe's castles, the White House grounds–to witness the pervasive presence of physical determinist attitudes. But the manipulation extended beyond structures and into the surrounding landscape. Edward I, king of England, ordered vegetation removed from the flanks of his highways to hinder robbers from laying in wait (Brantingham & Brantingham, 1993). Following in the footsteps of countrymen such as Edward 1, London introduced street lighting to foster safety. But beyond that, city districts renowned for their criminal presence were gutted and rebuilt with the aspirations of eliminating the slums and their unsavory inhabitants (Brantingham & Brantingham, 1993).

The paradigm shift beginning in the 1970's asked new questions about the relationship between crime and the environment. To what extent do criminals, burglars in particular, concern themselves with details of the setting? In what situations if any do environmental cues impact

likelihood of a criminal targeting a site? What "signs" convey messages of 'payoff' and what signs communicate risk of being caught? What geographical and cultural factors affect the range of criminals? How does vegetative cover influence public as well as offender perceptions of risk? More specifically, do the opinions of incarcerated criminals reflect those of the lay population who are 'targets'?

By no means do we presently have a firm grasp on the fullness of our environment's impact on the many aspects of crime. Yet two decades of research has yielded many enlightening findings. The extreme physical determinism has seen a subtle but critical shift; questions about the environment tend less towards how it affects or determines crime, and more toward how decisions made by criminals are affected by it. Thus all faith is not put on the setting for dictating incidence of crime.

It is understandable why the former belief was clung to for so long. Modifying a hedge or a building is far easier than changing a person. Thus to control crime simply through environment modification would be more or less a one time proposition once the correct solution is arrived at. Many are still attempting to solve crime problems through this method. Unfortunately the very part of people which make them more difficult to modify than environments is also what prevents setting modification from being the final solution. More specifically, people adapt to changes in settings and this adaptation is what makes crime so difficult to defend against.

This dilemma is what keeps the defensive products industry in business. Because criminals adapt the industry must do likewise. When door chains fail then deadbolts are purchased. When deadbolts do not prevent a window from being broken then an alarm is purchased. When the alarm is circumvented a better alarm is purchased. Or perhaps a dog or firearm is purchased. This is not to say that the adaptability of criminals makes these efforts fruitless or inevitably doomed to defeat. Rather it points up the fact that as long as people have developed methods of defense other people have found ways to defeat them.

Not only are criminals apt to change, but the remainder of the public, those who may need to respond to a crime in the absence of law enforcement personnel, can do likewise. It was not long ago that the lack of response by witnesses of crimes was cause for public outcry, yet times, or more specifically, people, have changed. An example of how defense measures can be ignored by the public is the auto alarm. Alarms which emit deafening sirens to alert listeners of a break-in were only years ago capable of grabbing the attention of anyone within earshot.

Today the various emissions of those same alarms are so common as to affect more glares of annoyance than attempts to intervene.

There are defenses which are highly effective against most perpetrators. For example, large and/or vicious dogs present deterrents which most burglars do not wish to deal with (Wright & Logie, 1988). And while there are an elite few for whom a dog is an inconvenience but not necessarily a deterrent (Bennett, 1989), there are plenty of homes without Rottweilers which a burglar can choose instead. A target's defensive elements will influence the decision whether to commit the offense or not, but it will not *control* the outcome of that choice because the criminal still has freedom of choice. Because of this defense experts (Ayoob, 1992; U.S. Army 1987) recommend "layering" defenses rather than depending upon a single complex measure (e.g., installation of an alarm on a home without locks).

Expecting too much from a single defensive measure can result in bewilderment when the system fails to live up to those expectations. Unrealistic expectations may even account for disappointment in some well known theories of defense. For instance, Oscar Newman's 'defensible space' has been reexamined time and again and has been found to offer some utility in reducing crime, though never to the degree originally postulated. Just as deadbolts on their own are no panacea but can have its effectiveness improved by augmenting it with other devices, so too can a theory of deterrence account for more causes of crime when combined with other theories.

Parks, Crime and Crime Prevention

F.L. Olmsted, designer of Central Park in New York, heralded parks as places for "refreshment of minds and nerves" (Roper, 1973). Today, in cities across our country, crime threatens to neutralize the rejuvenating powers of public parks. In recent decades fear of robbery and personal assault has led to reduced park usage and consequently a reduction in the refreshment of which Olmsted spoke. In urban parks public safety is becoming a growing issue as cities see crime on the increase. Stopping criminals, however, is no longer only the domain of police officers and detectives, but is a task being faced by park managers and designers.

Outdoor recreation areas (i.e., parks) present a unique environment in which to study setting influence and criminal behavior. Typically lacking the necessary access for police cruisers, parks are automatically at a disadvantage when it comes to a law enforcement presence. Added to that problem is the fact that recreators often seek out parks for the solitude which they offer. Park designers have recognized this desire for solitude and privacy, providing narrow paths,

vegetative screening, and limited non-pedestrian access. Unfortunately the locations which afford the most solitude also lack surveillance and good escape routes, while offering concealment to criminals.

When it comes to defending parks, users are often as not on their own. Parks belong, in a defended territorial sense, to their users. They are not equipped with alarm systems, deadbolts or any other defense system. At most, an individual may take with them a means of personal defense (i.e., a dog, a friend, or a weapon). The defense offered by the park may consist of an emergency phone, the nearby police patrol, or, more often, other park users. By and large, however, as situation necessitate more defensive precautions they lose more of the relaxation and other benefits which the park experience was meant to provide.

It is clear that crime in parks constitutes a threat to the very purposes for which they were made. However numerous studies referenced here have found that the perception of crime (or a lack of safety) also adversely affects park patrons. This indicates that parks managers must not only strive to prevent actual incidents of crime, but also those cues which suggest to the public that exposure to incivility is a possibility. The balancing act which results is even more challenging when confronting park features perceived differently by criminals and patrons. Although no data was available on this matter, burglary studies have shown that homeowners and burglars differ significantly when rating homes for vulnerability to break-ins (Taylor & Nee, 1988; Wright & Logie, 1988). Is it possible that public perceptions of vulnerability in recreation areas also differ from views of assailants? Does data which identifies park features that contribute to feelings of vulnerability really translate into management actions?

No studies have as yet confronted these challenging questions. Particularly disconcerting is the lack of information available on vegetation's contribution to safety. Trees and shrubs have been shown to be important contributors to well-being, yet they may also promote crime. Park managers for now are left to choose between retaining plantings for their demonstrable beneficial aspects, or to moderate or remove them for their contribution to perceived vulnerability or for their as yet unclear impacts on actual safety.

This issue is not likely to be solved with a simplistic, sweeping effort such as removal of understory vegetation. As criminology has shown, the criminal act is complex and is influenced by countless factors, including countless elements of the physical environment. That is one reason why this bibliography contains such a diverse mix of studies and reports. Because those who would seek to solve the challenges presented by crime in our parks must look to other

realms of criminology, must investigate different theories, and must, in all instances, try to understand the criminal who is the opponent of sorts in what amounts to a chess game in which the opponents never meet.

The Physical Environment

Crime Prevention Through Environmental Design

The following sub-sections deals with environmental design and the theory that manipulation of physical settings, including features within them (e.g., lighting, vegetation, etc.), can affect perpetration of crimes. Much has been written about *CPTED* (crime prevention through environmental design), to the point that concepts which it espouses, but which had occurred long before its inception, are often forgotten in the shuffle. For example, as early as stockades were built to inhibit enemies, or moats were dug about castles, the CPTED theories were in practice.

In general, however, the works cited herein address problems having less to do with physically preventing access (e.g., locks, fences, etc.) and more to do with dissuading criminals from attempting an offense (e.g., perceived risk vs reward). Although parks and their features have received little scrutiny in this matter, a diverse mix of other settings such as residences, and a variety of overlapping features like lighting and vegetation have undergone empirical testing for their impacts on crime. This will be the case with most of the topics covered herein, thus borrowing theory and findings from other research focuses will be both beneficial and unavoidable.

The following references deal with CPTED in general.

NOTE: The following guides to references do not necessarily reflect exhaustive lists of their topics within the bibliography. Highlighted references indicate a work has been annotated in the bibliography.

Angel 1968, **Brantingham** 1989, **Brantingham and Brantingham** 1981a, Clarke 1980a/b, **Clarke and Mayhew** 1980, **Crowe** 1988, **Estrella** 1988, **Gardner** 1978, Heal and Laycock 1986, Healy 1968, **Jeffery** 1976, 1977, **Koehler** 1988, **Krupat and Kubzansky** 1987, Luedtke and Associates 1970, McInnes, Burgess, Hann and Axon 1982, Mayhew 1979, **Nasar and Fisher** 1992, Neiburg 1974, **Newman** 1972, **Poyner** 1983, Ray 1971, Rubenstein, Murray and Rouse 1980, Taylor and Gottfredson 1986, **Wallis and Ford** 1980a/b.

For Theories: **Angel** 1968, **Brantingham** 1989, Brantingham and Brantingham 1981a, Clarke 1980a/b, **Crowe** 1988, **Gardner** 1978, Heal and Laycock 1986, **Jeffery** 1977, Mayhew 1974, 1979.

Review of the Literature: **Brantingham** 1989, **Brantingham and Brantingham** 1981a.

Conceptual Tools for CPTED

Attempting to understand and prevent crime has led to numerous innovative concepts. Not surprisingly many have existed for centuries or longer. This may be due in part to their relation to war and defensive strategies against attack. Regardless of the source or antiquity, such concepts are used to assist with CPTED. This is because the physical environment is central to many, if not all of the theories. Thus modification of the environment affects the various conceptual tools. What follows is a review of those conceptual tools most frequently used in crime prevention.

Surveillance

Surveillance refers to the *ability* of non-criminals to detect, typically visually, the perpetrator. It is linked to countless other aspects of crime prevention, but in each its power comes from the idea that criminals do not wish to be seen and/or identified. The reason is simple; detection, usually, equals intervention. If a burglar is seen and perceived as a burglar, they stand a good chance of being confronted, either by the observer or by those the observer might notify.

Surveillance does not, however, mean that someone is actually in the process of watching. For example, a mirrored office window facing onto a parking lot does not mean that someone is behind the glass. Similarly, the same office window at night may be lit, but if the parking area is not lit then anyone inside will be unable to scrutinize the outside. These two scenarios illustrate what the authors believe are primary factors contributing to the success or failure of "surveillance" as a crime deterrent; *presence of* a surveillance source and *obstructions to* surveillance sources. Neither has been found thus far amidst the range of criminology literature reviewed here.

The literature available which touches upon surveillance is widespread, with burglary being a prime example. Articles seldom deal with surveillance as the primary concept of interest, but combine it with others to test larger theories. This appears to be due in part to the certainty which surrounds surveillance's value as a deterrent. Burglar interviews are an excellent example, having shown consistently that homes which are easily surveilled are less desirable

and/or perceived as less vulnerable. This also has to do with a continuing trend away from attributing criminal actions to one or two factors.

Atkins, Husain and Storey 1991, **Clarke and Mayhew** 1980, **Cooper-Marcus and Sarkissian** 1986, **Duffala** 1976, **MacDonald and Gifford** 1989, **Mayhew, Clarke, Burrows, Hough and Winchester** 1979, **Poyner** 1992, **Wright and Logie** 1988.

For Theories: **MacDonald and Gifford** 1989.

Concealment

Concealment literature per se is scarce and, like surveillance, is most frequently found in studies of burglary. Therein the focus tends to be on how concealment influences the comfort or willingness to offend of burglars. Vegetation such as shrubs are often used as elements within the studies. Presence of physical features which are perceived to afford visual cover are consistently rated by subjects as contributing to the likelihood of a home being targeted. Although findings are consistent, concealment is given less attention than other concepts. For park managers, an improved understanding of concealment would seem to hold promise for understanding how park features may contribute to crime.

Brown 1983, **Brown** 1985, **Cooper-Marcus and Sarkissian** 1986, Fisher and Nasar 1991, **Fisher and Nasar** 1992, **Nasar and Fisher** 1993.

For Theories: **Fisher and Nasar** 1992.

Escape

Literature on escape, for either offenders or victims, is very scarce. Unlike concealment, little information is available even from other topical areas. For this reason the concept of escape holds potential for understanding criminal decision making processes such as targeting. The few studies which have empirically tested this concept report consistent findings, stating that correlation's were found between decreased escape and feelings of fear or decreased safety.

Atkins, Husain and Storey 1991, **Fisher and Nasar** 1992, **Nasar and Fisher** 1993.

For Theories: **Fisher and Nasar** 1992.

Prospect

Prospect is the ability to observe one's surroundings. It differs from surveillance in that it is used to describe the victim or the offender rather than others in the surrounding immediate area. It is unclear whether prospect is an important factor for criminals, although concealment research and prospect theories suggest it should be. Prospect, like escape and concealment, has seen inquiry by only a small group of researchers. It has even less of a history than the others and hence is less understood. The few studies listed are restricted to a single pair of scientists. Consequently it is difficult to ascertain how powerful the concept is for predicting and/or deterring crime. It is likely that this area of inquiry will see further investigation and may be an important addition to the crime equation.

Fisher and Nasar 1991, **Fisher and Nasar** 1992, **Nasar and Fisher** 1992, 1993.

For Theories: **Fisher and Nasar** 1992.

Physical Tools for CPTED

Physical "tools" used in crime prevention essentially consist of the physical features present in or capable of being incorporated into the environment. Of course not all features have demonstrable influences on crime. What follows are those which have received study or discussion. They are important because they are often the most tangible means by which park managers (and certainly designers) can reduce crime. They are also features which are typically present in parks and thus offer the potential for use in crime deterrence.

Lighting

This sub-section represents one of the most applied methods for crime reduction, yet its study has not been as intense as might be expected. Nor do the number of references listed here reflect the degree to which studies are available. Rather, they represent how the effects of lighting have been explored. All of this may have to do with the historical assumption that increased lighting decreases crime. While it may well be that lighting is a deterrent to criminals, it is also possible that it is only influential insofar as it increases surveillance. To do so a surveillance source must be present. Thus security lights around a neighborless school may not prevent vandals.

None of the works cited involved empirical testing of criminals' perceptions of lighting. Rather, those which did test were looking at fear of potential victims and influences of darkness on human interaction. This leaves a nagging question concerning how important lighting is in fact to criminals. It is hoped that future research with address this question, ideally in relation to other factors such as surveillance and concealment.

Atkins, Husain and Storey 1991, **Brantingham and Brantingham** 1993, **Cunnen** 1990, **Feeney, and Weir** 1973b, Fleming and Burrows 1986, Lentz, Sternhall and Lyle 1977, **Nasar and Fisher** 1992, 1993, Page and Moss 1976, Ramsey 1991, Wright 1974a.

For Theories: Page and Moss 1976.

Vegetation

Vegetation, according to the literature cited here, gains its importance in CPTED because of its influence on conceptual factors such as surveillance and prospect. Numerous articles discuss these factors, particularly burglary studies. Findings show good agreement and indicate that vegetation contributes to lowered surveillance and victim prospect, while increasing perpetrator concealment and prospect. Hand in hand with these results are lowered feelings of safety as vegetation density increases. These results tend to be for plantings which are within the sight line (i.e., 6 ft. or below).

Other studies have shown the presence of absence of vegetation to influence criminal comfort levels. This is due to lowered feelings of personal risk combined with heightened perceptions of the target as vulnerable. For all of these reasons vegetation is apt to remain an important "tool" for those studying or implementing CPTED, though current theories place it as no more than a physical feature influencing the various concepts.

Bennett 1989, **Bennett and Wright** 1983b, **Brower, Dockett and Taylor** 1983, **Cooper-Marcus and Sarkissian** 1986, **Fisher and Nasar** 1992, **Hammitt** 1980, **Hull and Harvey** 1989, **Logie, Wright and Decker** 1992, **MacDonald and Gifford** 1989, **Schroeder and Anderson** 1984, **Shaffer and Anderson** 1983, **Taylor and Nee** 1988, **Wright and Logie** 1988.

Trafficways

Trafficways include both pedestrian and vehicular designated routes (e.g., sidewalks and streets). Although they are locations in which crime does occur, they have been shown to be useful in terms of crime prevention as well. Studies of street layouts have shown that different patterns affect criminals differently, some less positively than others. Thus planning of streets can potentially deter offenders. Unfortunately there has been little study into this fascinating prospect, though findings thus far seem to be in agreement.

The other category, pathways, have only recently been explored. While physical in nature, they also have a conceptual side in that criminals have been found to habituate patterns, within which are routes of movement. Pathways are the linear corridors along which movement occurs, and they are also considered to be areas around or on which criminals strike. This, it is theorized, is because these are the areas they know.

Beavon 1984, **Bevis and Nutter** 1977, **Brantingham and Brantingham** 1993, Brown 1983, **Perkins, Meeks and Taylor** 1992.

For Theories: **Brantingham and Brantingham** 1993, **Perkins, Meeks and Taylor** 1992.

Implementation of CPTED

In Parks

Little has been written about CPTED in recreation areas, although this may have no bearing on the actual degree to which it is actually implemented in the field. This may be attributable to the difficulty which faces park managers who grapple with crime. Unlike a burglary, crimes such as assault or mugging are not centered around static targets. Their perpetrators must respond to human targets, and this leaves managers having to make safe every area of the park which might receive use. This problem is compounded by physical features whose positive and negative impacts are in conflict (e.g., vegetation). The following works offer some examples of how CPTED may be implemented.

Bengtsson 1970, Conners 1976, Conway 1980, **Cooper-Marcus and Sarkissian** 1986, **Hammitt** 1980, Harris and Brown 1972, **William Brill Associates** 1976.

In Buildings

This sub-section, while seemingly antithetical to open spaces, has yielded some of the most important findings to date concerning CPTED. This is attributable not only to structures housing valuables, but also to their clearly defined points of access. In effect, they are far more easily defended via preventative design. This does not, however, limit the applicability of findings to parks. On the contrary, the principles driving defense of structures are, by-and-large, useful for defending any given place.

The reader should note that the following references are not an exhaustive listing of all works within this bibliography which pertain to buildings. Instead, listed are a variety which provide an introduction into different perspectives on the topic.

> **Brown** 1983, 1985, **Brown and Altman** 1983, **Bynum and Purri** 1984, **Clarke and Mayhew** 1980, **Cooper-Marcus and Sarkissian** 1986, Fisher and Nasar 1991, **Greenberg and Rohe** 1984, **Keely and Edney** 1983, Mayhew 1984, Newman 1973, **Newman** 1976, Phelan 1977, Rengert 1987, Tiffany and Ketchel 1979, Underwood 1984, **Ward** 1973, **William Brill Associates** 1976, **Wilson** 1978.

In Building Surroundings

The literature for this area is less prevalent than for buildings themselves, but may be of more help when linking findings to recreation areas. Included are pieces dealing with burglary, vandalism and specific CPTED implementation practices.

> Brown 1983, **Brown** 1985, **Cooper-Marcus and Sarkissian** 1986, **Duffala** 1976, **Fisher and Nasar** 1992, **Greenberg and Rohe** 1984, Rengert 1987, Rengert and Wasilchick 1980, **Ward** 1973.

In Parking Areas

Parking areas have received very little study, yet their ubiquitous nature gives them an importance beyond that reflected by these few references. With regards to parks it is obvious that most areas have parking facilities. If for no reason other than that an increase in research into this area would be useful.

Bolden and Sharitz 1983, **Cooper-Marcus and Sarkissian** 1986, **Poyner** 1992, **Shaffer and Anderson** 1983.

Other Crime Prevention

This sub-section contains a broad range of works dealing with means of deterrence. Most are pertaining to physical aspects of the environment, however a number deal with social methods. A number also focus on situational crime prevention

Alfano and Magill 1976, **Bell and Burke** 1992, Beyleveld 1979, 1980, Boggs 1971, **Brantingham** 1989, Brantingham and Brantingham 1984a, Brantingham and Faust 1976, **Cantrell** 1988, Carroll and Payne 1978, Clarke 1980a/b, 1992, Cohen 1983, Cook 1980, **Decker, Wright and Logie** 1993, **Feeney and Weir** 1973a/b, Felson 1986, Gabor 1981, **Griswold** 1992, Heal and Laycock 1986, Henshel and Carey 1975, Laycock and Heal 1989, Lewis and Salem 1981, **Matthews** 1992, McNamara 1984, Minor 1978, Podolefsky and Dubow 1983, Poyner 1981, Ramsey 1982, **Reppetto** 1976a/b, Sacco and Silverman 1981, Silberman 1976, Titus 1982, Waller 1979, Washnis 1977, Whitaker 1986, Zimring 1978.

Crime and Geography

Locations

Within this section are works ranging from specific settings, such as streets, to broad geographical areas, such as neighborhoods. It examines where crimes are occurring, breaking the areas into groups. It is meant to be distinct from earlier divisions which discussed how to combat crime in different areas. It also introduces literature which discusses why crime is occurring in various settings.

Parks

This sub-section includes works dealing with all outdoor spaces generally termed 'parks'. It also includes open space studies which do not use that term specifically. As the central topic for this bibliography, it is understandable that this section would contain numerous references. Included are investigations of areas other than those explicitly looking at crime. For example,

Alfano and Magill 1976, **Brantingham and Brantingham** 1993, Campbell, Hendee and Clarke 1979, Conners 1976, Conway 1980, Fletcher 1983, **Gold** 1969, 1972, Grove 1976, Harold Lewis Malt Associates 1972, Harris 1979, Harris and Brown 1972, Hierlihy 1991 Laidles 1970, **McDonald and Newcomer** 1973, **More** 1985, **Schroeder and Anderson** 1984, Stoks 1982, Toronto 1988, 1990, U.S. National Park Service 1978, **Westover** 1985, Westover, Flickinger and Chubb 1980, Whyte 1972, **William Brill Associates** 1976.

Community/Neighborhoods

This sub-section covers pieces which deal with the issues of safety, crime, fear and cohesion in the social regions we term neighborhoods. They are often of interest because residents have lived in them for decades and can reflect on changes over those years. Also, because people remain there throughout the day and night they can comment more wholly on how crime influences the area. Lastly, residents' investments in their homes makes the neighborhood high priority for improving the lives of people in all cities and states.

Abrams et al. 1993, **Bevis and Nutter** 1977, **Brower, Dockett and Taylor** 1983, **Brown** 1983, 1985, **Brown and Altman** 1981a, 1983, **Brown and Bentley** 1993, Conklin 1971, **Cooper-Marcus and Sarkissian** 1986, Covington and Taylor 1990, Fowler and Mangione 1982, **Gardner** 1978, **Greenberg and Rohe** 1984, **Hartnagel** 1979, Herbert and Hyde 1984, **Hope and Shaw** 1988, Luedtke and Associates 1970, McInnes, Burgess, Hann and Axon 1982, Maltz, Gordon and Friedman 1990, **Molumby** 1976, Morrill 1965, Newman 1973, **Pease** 1992, Perry 1984, Rosenbaum, Lewis and Grant 1986, Schneider 1986, Skogan 1988, Skogan and Maxfield 1981, Smith 1989, Taylor and Gottfredson 1986, **Taylor, Gottfredson and Brower** 1984, **Taylor, Shumaker and Gottfredson** 1985, Titus 1984, Yin, Vogel, Chaiken and Both 1976.

For Theories: **Taylor, Shumaker and Gottfredson** 1985.

Parking Areas

This sub-section is underrepresented in terms of the amount of available literature. Although parking lots are frequently mentioned regarding assaults, auto theft and vandalism, next to no research is to be found. Because parking lots, when incorporated, are an important access point to park users, they command greater attention.

Cooper-Marcus and Sarkissian 1986, **Poyner** 1992, **Shaffer and Anderson** 1983.

Streets

This sub-section deals with the primary arteries of cities, the means of linkage between the various sections, and an important component of criminal activities. They are also frequently the scene of crimes, such as in drug dealing, car jacking or drive-by shootings. They, along with adjacent sidewalks, are also the accessways to most parks.

Atkins, Husain and Storey 1991, Beavon 1984, **Bell and Burke** 1992, **Bevis and Nutter** 1977, **Brantingham and Brantingham** 1993, Brown 1983, **Duffala** 1976, Garling, Svensson-Garling and Valsiner 1984, Hunter and Baumer 1982, **Perkins, Meeks and Taylor** 1993, **Perkins, Wandersman, Rich and Taylor** 1993.

Buildings

This sub-section, as discussed above, may not seem immediately relevant to crime in recreation areas, yet it 'houses' some of the more noteworthy findings. For example, study of public housing and residential burglary have both seen significant theoretical advances, ones which are relevant to understanding crime and the criminal in all locations. Of particular interest is the examination of home types which are targeted by burglars. The residential work tends to be the more recent, while public housing studies were begun earlier and seem to have lost some of their interest, though the matter is no less important.

Archea 1985, Brantingham, Brantingham and Molumby 1977, **Bynum and Purri** 1984, **Cooper-Marcus and Sarkissian** 1986, **Duffala** 1976, Rengert and Bost 1987, Reppetto 1974, **Rohe and Burby** 1988, Rohe and Burby 1989, Sommer 1987, Walsh 1980.

General Settings

This sub-section includes works which have dealt with settings not covered by any of the latter divisions.

Atkins, Husain and Storey 1991, Brantingham and Brantingham 1975a, 1978, Brower 1980, Davidson 1982, 1986, Dietrick 1977, **Duffala** 1976, Engstad 1975, Evans and Herbert 1989, Evans and Oulds 1984, Felson 1983, Georges-Abeyie and Harries 1980,

Gold 1970, **Herbert** 1982, Jacobs 1961, Katzman 1980, **O'Donnell and Lydgate** 1980, Ramsey 1982, Reiss and Tonry 1986, Rengert 1987, Whyte 1980, **William Brill Associates** 1976.

Patterns

Hot Spots

This is a new and exciting conceptual area being explored by a small number of researchers. It involves examination of the environment at both micro and macro levels, and theorizes that factors come together in a given location and thus impact the likelihood of a crime to occur. This is counter to less focused examinations in which regional perspectives were adopted. Research in this area shows good agreement thus far and should be followed in coming years.

Davidson 1982, 1986, **Nasar and Fisher** 1993, **Riger, Gordon and LeBailly** 1982, Roncek and Maier 1991, Sherman, Gartin and Buerger 1989.

For Theories: **Nasar and Fisher** 1993.

General

Literature in this sub-section deals with the increasingly studied topic of patterns of crime and criminal activity. Although this method has been a perennial means for criminal investigation, it has not always been used for studying crime and the environment. It holds promise for being a major link in the puzzle of predicting offender targeting and other habits.

Bevis and Nutter 1977, Beavon 1984, Boggs 1966, Brantingham and Brantingham 1975b, Brantingham and Brantingham 1977, Brantingham and Brantingham 1984b, **Brantingham and Brantingham** 1993, **Canter and Larkin** 1993, Capone and Nichols 1976, **Davidson** 1981, **Feeney and Weir** 1973b, Felson 1986, Figlio, Hakim and Rengert 1986, Georges-Abeyie and Harries 1980, LeBeau 1987, Ley and Cybriwsky 1974, Lowman 1983, Lowman 1989, Maltz, Gordon and Friedman 1990, **Molumby** 1976, **Perlgut** 1983, Pyle 1974, Rengert 1975, Rengert 1980, Rhodes, Conly and Schachter 1980, Roncek and Maier 1991, Sampson and Wooldridge 1986, Smith 1976.

The Human Element

This section focuses upon the two most important groups involved in park crimes; the victim and the offender. Each group has been the subject of substantial study and each offers unique insights into predicting and deterring such offenses.

Understanding the Offender

General research on criminals is abundant to say the least. And given the generalizability of topics such as decision making it is understandable that little effort has been made to delve into those topics for offenders of park users in particular. Research of this genre may in fact be available, however the authors did not come across any [Studies of mugging may closest approximate this]. Instead, what have been compiled are works which address the offender according to the latter universal topics. They were chosen according to how they dealt with environmental factors (e.g., response to the target) and how applicable they might be to crimes common to recreation areas.

Behavior

The primary groups within this section, crimes and habits, reflect the those areas of behavior most often investigated. While not all of the crimes are committed in parks (i.e., burglary), each is important for its contribution to the theoretical understanding of criminals and/or because it is potentially found to occur in parks.

Burglary

The study of burglars and burglary may contribute more to understanding open space criminal processes than study of any other offense. The literature is rich in variety and focus, and has seen development more nearly three decades. Relevant to parks, major findings include the following:

- Differences exist between perceptions of vulnerability by homeowners and burglars.
- Physical features of residences act as cues for burglars, and influence perceptions of vulnerability.
- The degree to which burglars are deterred by cues varies with their experience level.

There is strong agreement across most areas of inquiry. However a diversity of theories exist explaining why burglaries occur as they do. Innovative research methods have served as catalysts for revealing explanations of conflicting findings. For example, interviewing active

burglars revealed that incarcerated offenders (who were typically involved as representing the offender subject group) have significantly different perceptions than do their active counterparts. This has been attributed to differences between the groups such as number of arrests and number of offenses. The active burglars tended to have been caught less and to offended more often.

Application of findings from burglary research has already been applied to studies of crime in other open spaces. It is likely that the same could be done for studies of park crimes with similarly beneficial results.

NOTE: The following guides to references do not necessarily reflect exhaustive lists of their topics within the bibliography. Highlighted references indicate a work has been annotated in the bibliography.

Beavon 1984, **Bennett** 1989, **Bennett and Wright** 1983a/b, 1984a/b, **Bevis and Nutter** 1977, Brantingham and Brantingham 1975a/b, 1977, 1984a, **Brown** 1983, 1985, **Brown and Altman** 1981a, 1983, **Brown and Bentley** 1993, **Bynum and Purri** 1984, Chimbos 1973, Clarke and Hope 1984, Cohen and Cantor 1981, Conklin and Bittner 1973, Cromwell, Olson and Avary 1991, Dietrick 1977, Eck 1983, Eskridge 1983, Evans 1987, 1989, **Griswold** 1992, **Logie, Wright and Decker** 1992, **MacDonald and Gifford** 1989, Maguire 1980, Maguire and Bennett 1982, **Nee and Taylor** 1988, **Pease** 1992, Pettiway 1982, Phelan 1977, Pope 1977, Rengert and Wasilchick 1980, Rengert and Wasilchick 1985, Rengert and Wasilchick 1989, Reppetto 1974, Scarr 1977, Schneider 1986, Shover 1973, **Taylor and Nee** 1988, Titus 1984, Vito, Longmire and Kenney 1984, Waller 1979, Waller and Okihiro 1978, Walsh 1980, Winchester and Jackson 1982.

Review of the Literature: **Brown** 1985.

Mugging

Very little literature was found pertaining to the crime of "mugging". Mugging, in law enforcement circles , refers to a number of assaults. It is commonly associated with urban parks, although no reference was found which provides data on this assumptions. One explanation for the lack of research may be the lower economic impact which is associated with muggings versus the multi-million dollar losses from burglary. Also, the target is not a structure and therefore is far more difficult to study, as are targeting processes and offender decision making. None of this helps the park manager or recreation researcher whose goal is to deter

muggers. Greater investigation is needed, but finding leads will require searching other fields, as well as more purely criminological research.

LeJeune 1977, **LeJeune and Alex** 1973, **Whyte** 1988.

Vandalism

Vandalism, though not as serious as assaults on park patrons, is a real and present challenge to urban park managers. The following literature offers an introduction to theories and methods of deterrence. It is particularly important because studies have shown that vandalism is perceived by the public as a cue to unrest and reduced safety. This may be an indication that vandalism is actually a defining act which reflects actual crime rates as well as safety.

Alfano and Magill 1976, Clarke and Mayhew 1980, **Cooper-Marcus and Sarkissian** 1986, Ley and Cybriwsky 1974, **Perlgut** 1983, **Schroeder and Anderson** 1984, Sommer 1987, **Ward** 1973, **Wilson** 1978, Zimbardo 1973.

For Theories: Sommer 1987.

Habits

Incorporated within this sub-section are works dealing with, among other topics, habits of criminals' lifestyles, their movement patterns, and their offense patterns. Readers will find this area useful for better understanding the offender as a persons whose actions are non-random, and thus more or less predictable. The application to deterrence is especially relevant to knowing where and when CPTED measures should be implemented given a finite deterrence budget.

Lines of inquiry are very diverse and do not always agree. The authors suggest that those investigating this area would be well advised to look beyond this selection for summaries of the research.

Archea 1985, **Ashcroft and Scheflin** 1976, **Atkins, Husain and Storey** 1991, Baldwin and Bottoms 1976, Bell and Boat 1957, **Bennett** 1989, **Bennett and Wright** 1983a/b, 1984a/b, Brantingham and Brantingham 1984a, **Canter and Larkin** 1993, Carter and Hill 1980, Chaiken and Chaiken 1982, **Cohn** 1993, Dunlap et al. 1990, Feldman 1977,

Felson and Cohen 1980, Gibbs and Shelly 1982, **Jackson** 1969, Jeffery 1968, Kramer 1977, Peterson, Braiker and Polich 1981, Pettiway 1982, Ptersilia, Greenwood and Lavin 1977, Reiss 1983, Rengert 1975, Rengert 1980, Rengert 1989, Rhodes, Conly and Schachter 1980, Roncek and Maier 1991, Scarr 1977, **Sherman, Gartin and Buerger** 1989.

For Theories: **Canter and Larkin** 1993, Carter and Hill 1980, Feldman 1977, Gabor 1981, Grove 1976, Roncek and Maier 1991.

Perceptions & Attitudes

The groups within this section deal with criminal cognition. Most can be categorized as relating to the decision making process, however decision making has developed unto its own. As with the criminal behavior, criminal perceptions and attitudes are rarely investigated for parks settings or crimes. They can be very theoretical, as with risk, or more grounded, as is the cased with targeting. Most importantly the views of the offender are important because they help to develop a more holistic understanding of crimes.

Decision Making

Studies of criminal decision making is particularly relevant to persons who, in the absence of pertinent literature, are studying how offenders will react in a given situation. It offers insightful looks at what is and is not important to offenders. Burglary, again more than other areas of inquiry, has shed light on decision making as it is affected by features of the physical environment. It continues to be an important research area, and shows generally consistency among findings.

Bennett 1989, **Bennett and Wright** 1983a/b, 1984a/b, Blazicek 1985, Brantingham and Brantingham 1978, **Brown** 1983, 1985, **Brown and Altman** 1983, **Brown and Bentley** 1993, **Bynum and Purri** 1984, Carroll 1982, Carroll and Payne 1978, Cimler and Beach 1981, **Clarke and Cornish** 1985, Cornish and Clarke 1986, Erez 1979, **Logie, Wright and Decker** 1992, **Nee and Taylor** 1988, Payne, Braunstein and Carroll 1978, Walsh 1986, Wright 1974.

For Theories: **Clarke and Cornish** 1985, **Decker, Wright and Logie** 1993.

Risk

The following research on the concept of risk focuses on how criminals respond to risk in a variety of setting and offense scenarios. This area of inquiry is not well developed, yet offers good potential for explaining what comprises a risk capable of dissuading an offender.

Bennett 1989, Brantingham, Brantingham and Butcher 1986, Brown and Bently 1993, Claster 1967, **Logie, Wright and Decker** 1992, Paternoster, Saltzman, Chiricos and Waldo 1982, Slovic, Fischoff and Lichtenstein 1982, Slovic and Lichtenstein 1968.

For Theories: **Bennett** 1989.

Targeting of People

The following resources represent only a sampling of the literature available on this subject. These works often have close ties to patterning theories, however some do focus specifically on victim selection. While it is an important topic for park managers and the public, it may be of limited value for designing settings for deterrence.

Blazicek 1985, **Canter and Larkin** 1993, Hindelang, Gottfredson and Garafolo 1978, LeBeau 1987, LeJeune 1977, **LeJeune and Alex** 1973, Page and Moss 1976, **Reiss** 1983, Rengert 1975, Walsh 1986.

For Theories: Blazicek 1985.

Targeting of Places

It is in targeting that burglary studies are of particular interest. The majority of the following studies were focused upon residential burglary. Findings are generally in agreement across studies. Findings of interest include:

- Defense/detection measures (e.g., alarms, dogs) deter most burglars, but to different degrees.
- Siting of buildings in relation to other buildings and to streets affects targeting choices.
- Targeting choices vary across offender's experience levels.

Bennett 1989, **Bennett and Wright** 1983a/b, 1984a/b, **Bevis and Nutter** 1977, Brantingham and Brantingham 1978, Cohen and Cantor 1981, **Duffala** 1976, **Logie, Wright and Decker** 1992, **Taylor and Nee** 1988, Walsh 1986.

For Theories: Brantingham and Brantingham 1978.

In General

The following works cover a variety of information regarding criminals. For example, several are texts chronicling the lives and thoughts of professional criminals.

Baldwin and Bottoms 1976, Capone and Nichols 1975, 1976, Carter and Hill 1975, Henshel and Carey 1975, Letkemann 1973, Ley and Cybriwesky 1974, Mayhew, Clarke, Sturman and Hough 1976, Phelan 1977, Rengert and Wasilchick 1989, Sutherland 1937, Weaver and Carroll 1985, West 1978, Wright and Bennett 1990.

The Public and Crime

Research on the public's and victims' responses to crime is abundant.. Unfortunately large part of that research deals with emotions and the aftermath of victimization. While this is an important topic, it does not offer much insight into what to do about crime. Rather it sheds light upon just how damaging crime can be to the unwilling participant. Of more interest here are people's reactions to crime. This topic is broken into two sub-sections. Within them the reader will find a wide range of discussions and studies on how the potential victim reacts.

Reactions to Crime

Territoriality

Territoriality research has been around mostly since the early Seventies. Interest in the topic waned in later years, probably due in part to strong disagreement over the efficacy of territoriality to either defend/deter or explain patterns of crime. An example of the conflicting arguments is whether evidence of territoriality dissuades or entices burglars. The two theories go as follows. If cues suggest strong territoriality then residents are likely to intervene. This is displeasing to offenders. Or, evidence of territoriality suggests that there is something worth defending inside, some payoff which is worth the potential detection. Conflicts like this have

left territoriality as a somewhat unwanted child. Listed here is a broad selection of studies and publications.

Brower 1980, **Brower, Dockett and Taylor** 1983, **Brown** 1983, 1985, **Brown and Altman** 1981a, 1983, **Brown and Bentley** 1993, **Cooper-Marcus and Sarkissian** 1986, Latane and Darley 1970, **MacDonald and Gifford** 1989, Moriarty 1975, Patterson 1978, **Perkins, Wandersman, Rich and Taylor** 1993, Porteus 1976, **Taylor, Gottfredson and Brower** 1984, Taylor, and Stough 1978.

For Theories: Brower 1980, **Brown and Altman** 1981a, 1983, **MacDonald and Gifford** 1989.

Review of the Literature: **Brown** 1985.

Attitudes/Perceptions

The literature included generally attempts to analyze non-victims' perspectives on crime [the *Victimization* sub-section covers victim perspectives]. It may be useful to the reader who wishes to better understand how park users, as members of the general public, are viewing crime. It should be noted, however, that many of these works examine crime as an overall trend or state, and not as an occurrence in a real place where respondents were likely to face it. 'Crime' was therefore kept mostly conceptual. A few studies also included the public for comparisons with offenders, as was the case with many burglary works, and still other have looked at the accuracy of public beliefs (Warr 1980, 1982).

Brantingham, Brantingham and Molumby 1977, **Brower, Dockett and Taylor** 1983, Conway 1980, Creechan, Hartnagel and Silverman 1978, Fisher (in press), Garofalo 1977a, Hindelang 1974, Lewis 1981, **Logie, Wright and Decker** 1992, McIntyre 1967, Maguire 1980, **Perkins, Meeks and Taylor** 1993, **Shaffer and Anderson** 1983, Skogan and Maxfield 1981, **Taylor and Nee** 1988, **Taylor, Shumaker and Gottfredson** 1985, Thomas and Hyman 1977, Titus 1984, Warr 1980, 1982, **Westover** 1985, **William Brill Associates** 1976, Wise 1983.

Impacts from Crime

Fear

Fear research, more than any other issue related to the public and crime, is available to interested persons. How beneficial it is to the readers of this publication is uncertain. Most of the works offer insights into what subjects feared and how they responded to it. And while some do touch upon what types of places induce fear, the *Vulnerability* sub-section tends to cover that aspect.

Atkins, Husain and Storey 1991, Baumer 1978, 1985, Box, Hale and Andrews 1988, Brooks 1974, Clarke and Lewis 1982, Covington and Taylor 1990, Erskine 1974, **Fisher and Nasar** 1991, 1992, Fowler and Mangione 1982, 1986, Garofalo 1977b, Garofalo 1979, Gordon and Riger 1978, **Hartnagel** 1979, Hassinger 1985, Henig and Maxfield 1978, Hunter and Baumer 1982, **Lewis and Maxfield** 1980, **Nasar and Fisher** 1992, Nasar, Fisher and Grannis 1993, Patterson 1978, Poveda 1972, Ramsey 1991, **Rohe and Burby** 1988, Rohe and Burby 1989, Skogan 1986, Smith 1989, Taylor 1989, **Taylor, Gottfredson and Brower** 1984, **Taylor, Shumaker and Gottfredson** 1985, Warr 1985, **Westover** 1985, **William Brill Associates** 1976, Wise 1983.

For Theories: Baumer 1985, **Taylor, Shumaker and Gottfredson** 1985.

Vulnerability

Although similar to some work in victimization, vulnerability pertains to feelings held while in specific settings, rather than a state of mind. For the park manager such information may be useful for understanding where patrons are likely to feel uncomfortable and so less likely to go or to enjoy while there.

Brown 1985, **MacDonald and Gifford** 1989, **Nasar and Fisher** 1992, **Phelan** 1977, **Taylor and Nee** 1988, Zimring and Zuehl 1986.

For Theories: **Taylor and Nee** 1988.

Victimization

This literature includes research and surveys concerning victims' perspectives, victim responses, and fear/likelihood of victimization.

Babs and Austin 1989, Bureau of Justice Statistics 1988a/b, **Bynum and Purri** 1984, Dietrick 1977, Ennis 1967, Garofalo 1977a/b, 1979, Hindelang 1976, Hindelang, Gottfredson and Garofalo 1978, Koppel 1987, **LeJeune and Alex** 1973, Maguire 1980, Maguire and Bennett 1982, Schepple 1983, Thomas and Hyman 1977, Waller and Okihiro 1978, **Warr** 1984, 1990, **William Brill Associates** 1976, Zimring and Zuehl.

For Theories: Hindelang, Gottfredson and Garafolo 1978.

Research Methods

With Offenders

Criminological research often employs methods unique to itself. Of particular interest are methods of offender interviewing and testing. Although more difficult than interviews with the public, research has shown that significant differences in perceptions occur between the two groups. In an effort to understand how car thieves target parking vehicles it is thus best to go directly to the experts. And this has been the trend over the past decade, however some researchers have taken it one step further. Feeling that incarcerated offenders were not a representative sample of their active counterparts, a handful of authors have turned to locating and interviewing active criminals. Though time consuming and difficult, their results suggest that the effort may be uncovering more accurate data on offenders.

NOTE: The following guides to references do not necessarily reflect exhaustive lists of their topics within the bibliography. Highlighted references indicate a work has been annotated in the bibliography.

Bennett 1989, **Bennett and Wright** 1983a/b, 1984a/b, **Brown and Bentley** 1993, **Decker, Wright and Logie** 1993, Dunlap et al. 1990, Hagedorn 1990, **Logie, Wright and Decker** 1992, **Taylor and Nee** 1988, Wright and Bennett 1990, **Wright, Decker, Redfern and Smith** 1992, **Wright and Logie** 1988.

In General

The following works offer the reader other discussions of methods in crime research. Included are works of both methodological and theoretical concern.

American Institute of Research 1980, Baumer 1978, Baumer 1985, **Bennett** 1989, **Bennett and Wright** 1983b, Beyleveld 1980, **Brantingham** 1989, **Brantingham and Brantingham** 1981a, 1993, Brantingham and Faust 1976, Clarke 1980b, **Clarke and Cornish** 1985, Cook 1980, Minor 1978, **Moran and Dolphin** 1986, Paternoster, Saltzman, Chiricos and Waldo 1982, **Perkins, Meeks and Taylor** 1993, Siegel and Raymond 1992.

Review of the Literature: **Bennett and Wright** 1983b, Tonry and Morris 1980, 1983, 1986.

Other Information

Resources

Bibliographies

The following bibliographies may offer readers access to literature not contained herein.

NOTE: The following guides to references do not necessarily reflect exhaustive lists of their topics within the bibliography. Highlighted references indicate a work has been annotated in the bibliography.

Beyleveld 1980, **Koehler** 1988, McCormick, 1974.

Criminology

General Resources

The following works discuss general criminology for the reader interested in learning more about traditional theories and research.

Brantingham and Brantingham 1981a, Herbert and Hyde 1985, Sutherland and Cressey 1970.

Crime Rates

National Figures

Readers seeking resources on various crime rates across America may find the following works useful as a starting point.

Bureau of Justice Statistics 1988a/b, Federal Bureau of Investigation 1980, Hindelang 1976, Muluhill and Tumin 1969, Sessions 1989, Webster 1986.

ANNOTATED BIBLIOGRAPHY

Abrams, G., Ataov, A., Courson, W., Imeokparia, T., Melsheimer, W., Nasar, J. L., & Nix, R. (1993). A community safety guide for the City of Columbus. Columbus, OH: The Ohio State University, City & Regional Planning 851, Precinct Planning.

This guide was developed within a university course as a product for the community. The manual addresses ways by which the planning, design and maintenance of the environment may aid in reducing crime. It details the following six approaches: 1) increase personal guardianship, 2) increase natural surveillance, 3) increase visual control, 4) impede the criminal's approach and escape, 5) increase territoriality, and 6) increase sense of community. The net product is a good introduction to practical measures which cities or communities may take to deter criminals (text is supported with copious photographs, sketches and site plans).

Alfano, S. S., & Magill, A. W. (Eds.). (1976). Vandalism and outdoor recreation: Symposium proceedings. Berkeley, CA: U.S.D.A. Forest Service, Pacific Southwest Forest and Range Experiment Station.

American Institute of Research. (1980). The link between crime and the built environment: Vol. 1- The current state of knowledge. Washington, DC: National Institute of Justice, LEAA, U.S. Government Printing Office.

Amir, M. (1971). Patterns in forcible rape. Chicago, IL: University of Chicago.

Angel, S. (1968). Discouraging crime through city planning (paper No. 75). Berkeley, CA: Center for Planning and Development Research, University of California at Berkeley.

In this early work the author alludes to the infancy stage in which the field of CPTED then lay, concluding the paper by saying, "We have examined some possibilities for environmental crime prevention through (urban planning). We have tried at this stage to work out a theoretical structure in which this type of crime prevention can be made possible. There has been at this point no serious attempt to face the difficulties of implementation of these proposals.....I have taken the position of advocate planner in suggesting possible modifications....to meet particular needs for safety." The paper is brief (37 pg) but includes sketches to illustrate proposed layouts.

Archea, J. C. (1985). The use of architectural props in the conduct of criminal acts. Journal of Architectural and Planning Research, 2, 245-259.

Archea, J. C., & Patterson, A. (1985). Crime and the environment: New perspectives. Journal of Architectural and Planning Research, 2, 227-229.

Ash, M. (1975). Architecture, planning and urban crime. Proceedings of the National Association for the Care and Resettlement of Offenders Conference. London, England, UK: NACRO.

Atkins, S., Husain, S., & Storey, A. (1991). The influence of street lighting on crime and fear of crime (Paper 28). London: Home Office, Crime Prevention Unit.

Responding to the lack of hard data on street lighting's impact on crime, this work sought to fill the gap by studying a London borough undergoing relighting, partly to reduce crime. Working from an immense data set the study found "No evidence...to support the hypothesis that improved street lighting reduces reported crime....[a]lthough some areas and some crime types did show reductions in night-time crime relative to daylight control." Additionally, it found "[t]he perceived safety of women walking alone after dark in the re-lit area was improved, but few other effects were statistically significant."

Ayoob, M. F. (1992). The truth about self-protection. New York: Bantam Doubleday.

Babs, Y., & Austin, M. (1989). Neighborhood environmental satisfaction, victimization, and social participation as determinants of perceived safety. Environment and Behavior, 21, 763-780.

Baldwin, J., & Bottoms, A. (1976). The urban criminals: A study in Sheffield. London: Tavistock Institute of Human Relations.

Barr, R., & Pease, K. (1992). A place for every crime and every crime in its place: An alternative perspective on crime displacement. In D. J. Evans, N. R. Fyfe and D. T. Herbert (Eds.), Crime, policing and place: Essays in environmental criminology (pp. 196-216). New York: Routledge.

Baumer, T. L. (1978). Research on fear of crime in the United States. Victimology, 3: 254-264.

Baumer, T. L. (1985). Testing a general model for fear of crime: Data from a national sample. Journal of Research in Crime and Delinquency, 22, 239-255.

Beavon, D. (1984). Crime and the environmental opportunity structure: The influence of street networks on the patterning of property offenses. Unpublished masters' thesis, British Columbia: Simon Fraser University, Burnaby, British Columbia, Canada.

Bechtel, R. B. (1978). Undermanning theory and crime. Crime Prevention Through Environmental Design Theory Compendium. Arlington, VA: Westinghouse National Issues Center.

Bell, J., & Burke, B. (1992). Cruising Cooper Street. In R. V. Clarke (Ed.), Situational crime prevention: Successful case studies. New York: Harrow & Heston.

Bengtsson, A. (1970). Environmental planning for children's play. New York: Praeger.

Bennett, T. (1989).Burglars' choice of targets. In D. Evans & D. Herbert (Eds.), The geography of crime. New York: Routledge.

In this chapter the author explains the "situational approach" to studies of offending determinants, reviewing research methods and sampling techniques (including video-tape and interview method). The study discussed dealt with the concept of "risk, reward, and ease of entry" as perceived by burglars. The study found that decision to offend or not to offend was more influenced by risk (of being caught) cues than by reward or ease of entry cues. These findings are supported by a great deal of accumulated research.

Bennett, T., & Wright, R. (1983a). Constraints and inducements to crime: The property offender's perspective. Cambridge, England: University of Cambridge, Institute of Criminology.

Bennett, T., & Wright, R. (1983b). Offenders' perception of targets, Home Office Research Bulletin, 15, 18-20. London: H.M.S.O.

This paper briefly discusses methods and findings in using past offenders as subjects in studying situational crime prevention. It is one of the first such attempts, and the authors are well known now for their ongoing use of so-called "direct methods of investigation." Included are reviews of both photograph and videotape methods.

Bennett, T., & Wright, R. (1984a). Constraints to burglary: The offender's perspective. In R. Clarke & T. Hope (Eds.), Coping with burglary. Boston: Kluwer-Nijhoff.

Bennett, T., & Wright, R. (1984b). Burglars on burglary: Prevention and the offender. Aldershot, England: Gower.

Bevis, C., & Nutter, J. B. (1977). Changing street layouts to reduce residential burglary. Atlanta: Paper presented at the American Society of Criminology Annual Meeting, Atlanta, GA.

Awarded the 1st Prize at the Society's '77 Student Competition, this study found that dead end, cul-de-sac and L-type blocks experienced lower rates of crime than did through streets or t-type blocks (also submitted to Governor's Commission of Crime Prevention and Control, St. Paul, MN).

Beyleveld, D. (1979). Identifying, explaining and predicting deterrence. British Journal of Criminology, 19, 205-224.

Beyleveld, D. (1980). A bibliography on general deterrence research. Farnborough, UK: Saxon House.

Blazicek, D. (1985). Patterns of victim selection among robbers: A theoretical and descriptive analysis. Paper presented at the Fifth International Symposium on Victimology, Zagreg, Yugoslavia.

Block, R. (1977a). Community, environment, and violent crime. Crime Prevention Through Environmental Design Panel. Atlanta, GA: American Society of Criminology.

Block, R. (1977b). Violent crime, environment, interaction and death. Lexington, MA: Lexington.

Boggs, S. (1966). Urban crime patterns. American Sociological Review, 30, 899-908.

Boggs, S. (1971). Formal and informal crime control. Sociological Quarterly, 12, 319-327.

Bolden, C. M., & Sharitz, C. J. (1983). Security. In Dimensions of parking, pp. 105-108. Washington, DC: Urban Land Institute and National Parking Association.

Booth, A. (1981). The built environment as a crime deterrent: A reexamination of defensible space. Criminology, 18, 557-570.

Bottom, N. (1988). The parking lot and garage security handbook. Columbia, MD: Hanrow Press.

Bottoms, A. E., & Wiles, P. (1992). Explanations of crime and place. In D. J. Evans, N. R. Fyfe and D. T. Herbert (Eds.), Crime, policing and place: Essays in environmental criminology (pp. 11-35). New York: Routledge.

Box, S., Hale, C., & Andrews, G. (1988). Explaining fear of crime. British Journal of Criminology, 28, 340-356.

Brantingham, P., & Brantingham, P. (1975b). The spatial patterning of burglary. Howard Journal, 14, 11-23.

Brantingham, P. J., & Brantingham, P. L. (1977). Housing patterns and burglary in a medium-sized American city. In J. Scott & S. Dinitz (Eds.), Criminal justice planning (pp. 63-74). New York: Praeger.

Brantingham, P. J., & Brantingham, P. L. (1978). A theoretical model of crime site selection. In M. D. Kohn & R. L. Aders (Eds.), Crime, law and sanctions: Theoretical perspectives (pp. 105-118). Beverly Hills, CA: Sage.

Brantingham, P. J., & Brantingham, P. L. (Eds.). (1981a). Environmental criminology. Beverly Hills: Sage.

According to the authors, a crime takes place when all of the essential elements are present. These elements consist of: a law, an offender, a target, and a place. They characterize these as "the four dimensions of crime", with Environmental criminology studying the last of the four dimensions. This important book chronicles the subject from its inceptions through the '80s., discussing research, major areas of study . Chapters are written by such authors as Brown & Altman, Wood, Mayhew and Mawby.

Brantingham, P. J., & Brantingham, P. L. (1981b). Notes on the geometry of crime. In P.J. Brantingham & P.L. Brantingham (Eds.), Environmental criminology (pp. 27-54). Beverly Hills, CA: Sage.

Brantingham, P. J., & Brantingham, P. L. (1984a). Burglar mobility and crime prevention planning. In R. Clarke & T. Hope (Eds.), Coping with burglary (pp. 77-95). Boston: Kluwer-Nijhoff.

Brantingham, P. J., & Brantingham, P. L. (1984b). Patterns in crime. New York: Macmillan.

Brantingham, P. L. (1989). Crime prevention: The North American experience. In D. Evans & D. Herbert (Eds.), The geography of crime. New York: Routledge.

In this thorough and insightful chapter the author chronicles the conception, conceptual models of, and changes to crime prevention on this continent. In calling for further theoretical and applied research, she concludes that of the two levels at which prevention is proceeding-standardized programmes versus those specific to a socio-geographic environment-"...standardized programming is unlikely to work..." thus more investigation is needed in the latter area.

Brantingham, P. L., & Brantingham, P. J. (1975a). Residential burglary and urban form. Urban Studies, 12, 273-284.

Brantingham, P. L., & Brantingham, P. J. (1993). Nodes, paths, and edges: Considerations on the complexity of crime and the physical environment. Journal of Environmental Psychology, 13, 53-28.

This paper is extremely useful for the reader wishing an understanding of the past two decades of research on the relationship between crime and the physical environment. Over 200 works are cited in the process of discussing the field's progress and status. The authors utilize a theoretical framework to describe the range of studies conducted on the subject. This includes: 1) the complex etiology of crime; 2) the crime patterns of individuals, with particular attention to how the physical environment influences their behavior; 3) aggregate crime patterns, with particular attention to how the physical environment influences them. Also introduced are the concepts of nodes, paths, edges and an 'environmental backcloth'. The authors close with a discussion of general directions research should take from this point. They note the uniquely well developed understanding of burglary and suggest that research in other areas is needed to bring them up to similar levels. In particular they bring up the need for investigation of cognitive mappings pointing out that "the cognitive physical and spatial environment does not exist independently of the cognitive, social, cultural, economic, legal and temporal environment."

Brantingham, P. J., Brantingham, P. L., & Butcher, D. (1986). Perceived and actual crime risks. In P. Figlio, S. Hakim & G. Rengert (Eds.), Metropolitan crime patterns (139-160). New York: Criminal Justice Press.

Brantingham, P. J., Brantingham, P. L., & Molumby, T. (1977). Perceptions of crime in a dreadful enclosure. Ohio Journal of Science, 77, 256-261.

Brantingham, P. J., Dyreson, D. A., & Brantingham, P. L. (1976). Crime seen through a cone of resolution. American Behavioral Scientist, 20, 261-273.

Brantingham, P. J., & Faust, F. L. (1976). A conceptual model of crime prevention. Crime and Delinquency, 22, 284-296.

Brill, W. H. (1972). Security in public housing: A synergistic approach. In Deterrence of Crime in and Around Residences: Papers presented at the Fourth National Symposium on Law Enforcement Science and Technology. College Park, MD: Univeristy of Maryland.

Brill & Associates. (1976). Victimization, fear of crime, and altered behavior: A profile of the crime problems in William Nickerson Jr. Gardens, Los Angeles, CA. Washington, DC: U.S. Department of Housing and Urban Development.

*This report is one of a series on 'Victimization, Fear of Crime, and Altered Behavior' in public housing projects. The reports aim at gathering statistical information to be used for comprehensive security plans at the projects. One section deals with building design and location of crimes committed.**

Brooks, J. (1974). The fear of crime in the United States. Crime and Delinquency, 20, 241-244.

Brower, S. (1980). Territory in urban settings. In I. Altman et al. (Eds.), Human Behavior in the Environment: Advances in Theory and Research, Vol. 4. New York: Plenum.

Brower, S., Dockett, K., & Taylor, R. (1983). Residents' perceptions of territorial features and perceived local threat. Environment and Behavior, 15, 419-437.

Responses to varying images of defensible space features and territorial signs were measured utilizing line drawings with variations in key features. "Results supported the following hypotheses: (1) that the presence of real barriers and plantings are interpreted as a deterrent to intrusion and an indication of stronger occupant territorial attitudes, and (2) that as local perceived threat increases, territorial displays are viewed as less effective deterrents to intrusion.

Brown, B. B. (1983). Territoriality, street form, and residential burglary: Social and environmental analyses (Doctoral dissertation, University of Utah, 1983). Dissertation Abstracts International, 44, 357B.

Brown, B. B. (1985). Residential territories: Cues to burglary vulnerability. Journal of Architecture and Planning Research, 2, 231-243.

This paper uses "Newman's work on defensible space and Altman's work on territoriality to formulate a hypothesis that certain design elements enhance or reflect residential territoriality and thereby influence burglar's target selections. Specifically, evidence on the

links from real and symbolic barriers, traces, and detectability features to burglary vulnerability and residential territoriality are reviewed." The review of relevant literature is effective and useful.

Brown, B. B. (1987). Territoriality. In D. Stokols & I. Altman (Eds.), Handbook of environmental psychology, 2 (pp. 505-531).

Brown, B. B., & Altman, I. (1981a). Territoriality and residential crime: A conceptual framework. In P. Brantingham & P. Brantingham (Eds.), Environmental criminology (pp. 55-76). Beverly Hills, CA: Sage Publications.

Brown, B. B., & Altman, I. (1983). Territoriality, defensible space and residential burglary: An environmental analysis. Journal of Environmental Psychology, 3, 203-220.

With this study the focus of burglary prevention was heading towards use of cues. It was developing territoriality theories to great detail. The weaknesses the authors experienced, however, appear to have led to studies employing burglars. In that way researchers were able to overcome much of the guesswork which was otherwise necessary to determine decision making by criminals.

Brown, B. B., & Bentley, D. L. (1993). Residential burglars judge risk: The role of territoriality. Journal of Environmental Psychology, 13, 51-61.

Bureau of Justice Statistics. (1988a). Criminal victimization in the United States, 1986. National Crime Survey Report. Washington, DC: U.S. Department of Justice.

Bureau of Justice Statistics. (1988b). Criminal victimization, 1987. Bulletin. Washington, DC: U.S. Department of Justice.

Bynum, T. S, & Purri, D. M. (1984). Crime and architectural style: An examination of the environmental design hypothesis. Criminal Justice and Behavior, 11, 179-196.

*Historically, social scientists have argued that human behavior is, to a large degree, a response to environmental conditions. Recently, a group of criminologists posited a direct relationship between certain environmental structures and reported crime rates. Studies exploring this area have pointed to the association between crime rates and high rise residences as support for their position....Using victimization techniques, the experiences of residents of several high and low rise structures in a traditionally low crime area such as the college campus were investigated.....Although causality can not be inferred from the findings, a positive association was observed between high rise areas and property crime rates.**

Campbell, F., Hendee, J., & Clarke, R. (1979). Law and order in public parks. Park and Recreation, 6, 35-36.

Canter, D., & Larkin, P. (1993). The environmental range of serial rapists. Journal of Environmental Psychology, 13, 63-69.

This article at first seems more appropriate for aiding in the solving of crimes, however the application to deterrence is apparent. The authors, after studying 45 sexual offenders' spatial activity, found support for the 'domocentricity' theory, as well as the Marauder and Circle-and-Range hypotheses, while the Commuter model found no support. This suggests that offenders range out from a central point; their homes. This concentration of their offenses seems to offer support for the 'hot spot' theory. If offenders tend to reside in patterns other than purely random manners, then the possibility of non-random offense patterns would mean overall crime rates would be greater in and around their spatial range.

Capone, D. L., & Nichols, W. W. (1975). Crime and distance: An analysis of offender behavior in space. Proceedings of the Association of American Geographers, 7 (pp. 45-49).

Capone, D. L., & Nichols, W. (1976). Urban structure and criminal mobility. American Behavioral Scientist, 20, 199-213.

Carroll, J. (1982). Committing a crime: The offender's decision. In V. Konecni & E. Ebbesen (Eds.), The criminal justice system: A social-psychological analysis. New York: Freeman.

Carroll, J., & Payne, J. (1978). A psychological approach to deterrence: The evaluation of criminal opportunities. Journal of Personality and Social Psychology, 36, 1512-1520.

Carter, R. L., & Hill, K. Q. (1979). The criminal's image of the city. New York: Pergaman.

Carter, R. L., & Hill, K. Q. (1980). Area-images and behavior: An alternative perspective for understanding urban crime. In D. Georges-Abeyie & K. Harries (Eds.), Crime: A Spatial Perspective (pp. 193-204). New York: Columbia University Press.

Chaiken, J., & Chaiken, M. (1982). Varieties of criminal behavior. Santa Monica, CA: Rand.

Chenoweth, R. E. (1978). The effects of territorial markings on residents of two multi-family housing developments: A parital test of Newman's theory of defensible space (Doctoral dissertation, University of Illinois, 1977). Dissertation Abstracts International, 38, 5088. (University Microfilms No. GAX78-03955).

Chimbos, P. (1973). A study of breaking and entering offenses in Northern City, Ontario. Canadian Journal of Criminology and Corrections, 15, 316-325.

Chubb, M., & Westover, T. (1981). Anti-social behavior: Typology, messages and implications for recreation resourse managers. Land use allocation. St. Paul, MN: U.S.D.A. Forest Service, North Central Experiment Station.

Cimler, E., & Beach, L. (1981). Factors involved in juveniles' decisions about crime. Criminal Justice and Behavior, 8, 275-286.

Clarke, A., & Lewis, M. (1982). Fear of crime among the elderly. British Journal of Criminology, 22, 49-62.

Clarke, R. (1980a). Situational crime prevention: Theory and practice. British Journal of Criminology, 20, 136-147.

Clarke, R. (1980b). Situational crime prevention: Its theory basis and practical scope. In M. Tonry & N. Morris (Eds.), Crime and justice: An annual review of research, 4. Chicago: University of Chicago Press.

Clarke, R. (1992). Situational crime prevention: Successful case studies. New York: Harrow and Heston.

Clarke, R., & Cornish, D. (1985). Modeling offenders' decisions: A framework for research and policy. In M. Tonry & N. Morris (Eds.), Crime and justice: An annual review of research, 6. Chicago: University of Chicago Press.

Clarke, R., & Hope, T. (Eds.). (1984). Coping with burglary. Boston: Kluwer-Nijhoff.

Clarke, R., & Maybew, P. (Eds.). (1980). Designing out crime. London: H.M.S.O.

A series of excellent articles on reducing crime and vandalism by improving design and management of the environment in order to reduce opportunities for offending. This is a 'situational' approach to crime prevention and includes discussions of lock technology, surveillance, siting, and publicity campaigns

Claster, D. (1967). Comparison of risk perception between delinquents and non-delinquents. Journal of Criminal Law, Criminology, and Police Science, 58: 80-86.

Cohen, J. (1983). Incapacitation as a strategy for crime control: Possibilities and pitfalls. In M. Tonry & N. Morris (Eds.), Crime and justice: An annual review of research, 5. Chicago: University of Chicago Press.

Cohen, L., & Cantor, D. (1981). Residential burglary in the United States: Lifestyles and demographic factors associated with the probability. Journal of Research in Crime and Delinquency, 18, 113-127.

Conklin, J. (1971). Dimensions of community response to the crime problem. Social Problems, 18, 373-385.

Conklin, J. (1975). The impact of crime. New York: Macmillan.

Conklin, J., & Bittner, E. (1973). Burglary in a suburb. Criminology, 11, 206-231.

Conners, E. (1976) Public safety in park and recreation settings. Park and Recreation, 2, 20-21, 55-56.

Conway, K. L. (1980). Public perceptions of, and attitudes toward, crime in the parks of a major metropolitan area. Unpublished masters' thesis, Texas A&M University, College Station, TX.

Cook, P. (1980). Research in criminal deterrence: Laying the groundwork for the second decade. In N. Morris & M. Tonry (Eds.), Crime and justice: An annual review of research, 2. Chicago: University of Chicago.

Cook, P. (1986). The demand and supply of criminal opportunities. In N. Morris & M. Tonry (Eds.), Crime and justice: An annual review of research, 7. Chicago: University of Chicago.

Cooper-Marcus, C., & Sarkissian, W. (1986). Housing as if people mattered: Site guidelines for medium-density family housing. Berkeley, CA: University of California Press.

This highly readable book covers a variety of user groups and site design issues in housing developments. Chapter 13, Security and Vandalism, deals exclusively with crime in such developments, providing a rare variety of useful sketches and photographs to illustrate the text. Design guidelines extensively reference past research on the crime and housing and themselves offer suggestions which appear to the reader as simple yet valuable. Included are major subject headings are Penetrability, Territoriality, Opportunities for Surveillance, Ambiguity, Resident Conflicts, Vandalism, and Management.

Cornish, D., & Clarke, R. (Eds.). (1986). The reasoning criminal: Rational choice perspective on offending. New York: Springer-Verlag.

Covington, J., & Taylor, R. B. (1990). Neighborhood structure, neighborhood change, and fear of crime (Working Paper 19). Piscataway, NJ: Rutgers University, Center for Urban Policy Research.

Creechan, J., Hartnagel, T., & Silverman, R. (1978). Attitudes toward crime and law enforcement. Unpublished manuscript.

Cromwell, P., Olson, J., & Avary, D. (1991). Breaking and entering: An ethnographic analysis of burglary. Newbury Park, CA: Sage.

Crowe, T. D. (1988). An ounce of prevention: A new role for law enforcement. FBI Law Enforcement Bulletin, 57, 18-24.

Written by then director of the National Crime Prevention Institute, this audiences-specific article gives a quick introduction to the Crime Prevention Through Environmental Design (CPTED) concept. It discusses the principals of CPTED and explains via easily legible plan drawings examples of good and bad design.

Crowe, T. D. (1990, Fall). Designing safer schools. School Safet,. pp. 9-13.

Crowe, T. D. (1991). Crime prevention through environmental design. Woburn, MA: Butterworth-Heinemann.

Cunnen, J. M. L. (1990). The light solution to crime: Lighting makes life secure. Lighting Design and Application, 20, 16-17+.

Davidson, R. N. (1981). Crime and environment. London: Croom Helm.

This work offers "no blockbusting theory" on crime and the environment, but it does deal with spatial elements of crime patterns. The book repeatedly examines the theme of "spatial inequalities in patterns." The author's primary emphasis is upon offenses against persons and their property.

Davidson, R. N. (1982). Micro-environments of violence: Situational factors in violent crime. Paper presented at IBG Crime and Space Conference, London.

Davidson, R. N. (1986). Micro-environments of assault: The role of location in violent injury. In D. Herbert, D. Evans, R. Davidson, S. Smith, & R. Mawby (Eds.), The geography of crime (Occasional Paper 7, pp. 24-32). UK: North Staffordshire Polytechnic, Department of Geography and Recreation Studies.

Davidson, R. N., & Locke, T. (1992). Local area profiles of crime: Neighborhood crime patterns in context. In D. J. Evans, N. R. Fyfe and D. T. Herbert (Eds.), Crime, policing and place: Essays in environmental criminology (pp. 60-72). New York: Routledge.

Decker, S., Wright, R., & Logie, R. (1993). Perceptual deterrence among active residential burglars: A research note. Criminology, 31, 135-147.

The authors, two of whom are well known for their work with active and former offenders, here brief the reader on their findings comparing responses by active criminals and a non-criminal control group. The willingness to offend findings are important and not altogether expected, but most importantly they point out that "when studying perceptual deterrence in relation to serious offenses such as residential burglary, it is important to include real criminals."

Dietrick, B. (1977). The environment and burglary victimization in a metropolitan suburb. Paper presented at the Annual Meeting of the American Society of Criminology, Atlanta, GA.

Donnely, P. (1988). Individual and neighborhood influences on fear of crime. Sociological Focus, 22, 69-85.

DuBow, F. E., McCabe, E., & Kaplan, G. (1979). Reactions to crime: A critical review of the literature. Washington, DC: U.S. Department of Justice, Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice.

Duffala, D. C. (1976). Convenience stores, robbery, and physical environmental features. American Behavioral Scientist, 20, 227-246.

Dunlap, E., Johnson, B., Sanabria, H., Holliday, E., Lipsey, V., Barnett, M., Hopkins, W., Sobel, I., Randolph, D., & Chin, K. (1990). Studying crack users and their criminal careers: The scientific and artistic aspects of locating hard-to-reach subjects and interviewing them about sensitive topics. Contemporary Drug Problems, 17, 121-144.

Dunn, C. S. (1980a). Crime area research. In D. E. Georges-Abeyie and K. D. Harries (Eds.), Crime: A spatial perspective. New York: Columbia University Press.

Dunn, C. S. (1980b). Social area structure of suburban crime. In D. E. Georges-Abeyie and K. D. Harries (Eds.), Crime: A spatial perspective (pp. 136-137). New York: Columbia University Press.

Eck, J. (1983). Solving crimes: The invention of burglary and robbery. Washington, DC: U.S. Department of Justice.

Egan, J. (1991, July). Breaking through the myth of public safety. Landscape Architectural Review, 7-10.

Engstad, P. (1975). Environmental opportunities and the ecology of crime. In R. Silverman & J. Teevan, Jr. (Eds.), Crime in Canadian society (193-211). Toronto: Butterworth.

Ennis, P. (1967). Criminal victimization in the United States. Washington, DC: U.S. Government Printing Office.

Erez, E. (1979). Situational analysis of crime: Comparison of planned and impulsive offenses. (Doctoral dissertation). London: University Microfilms International.

Erskine, H. (1974). The polls: Fear of violence and crime. Public Opinion Quarterly, 38, 131-148.

Eskridge, C. (1983). Prediction of burglary. Journal of Criminal Justice, 11, 67-76.

Estrella, S. (1988). Stemming crime through environmental design. Security Management, 32, 86-89.

This two page article serves to introduce readers of this magazine (security managers) to the origination and development of CPTED (crime prevention through environmental design), and how they may incorporate it into their businesses. While it is neither empirical nor innovative, it does offer a quality, albeit very brief, discussion of the topic.

Evans, D. J. (1987). Burglary within an affluent housing area. Unpublished research note.

Evans, D. J. (1989). Geographical analyses of residential burglary. In D. Evans & D. Herbert (Eds.), The geography of crime. New York: Routledge.

Evans, D. J., Fyfe, N. R., & Herbert, D. T. (1992). Crime, policing and place: Essays in environmental criminology. New York: Routledge.

Evans, D. J., & Herbert, D. T. (Eds.). (1989). The geography of crime. New York: Routledge.

Evans, D. J., & Oulds, G. (1984). Geographical aspects of the incidence of residential burglary in Newcastle-under-Lyme, UK. TESG, 75, 344-355.

Federal Bureau of Investigation. (1980). Crime in the United States. Washington, DC: U.S. Government Printing Office.

Feeney, F., & Weir, A. (Eds.). (1973a). The prevention and control of robbery: The response of the police and other agencies to robbery, IV. Davis, CA: University of California.

This is the fourth of a four volume series of which this is the most relevant to the topic at hand. The studies contained in this volume seek to explain the criminal justice system's operation regarding robbery. Underlying this purpose was the goal of understanding the system's relevance to the problems of controlling and preventing robbery.

Feeney, F., & Weir, A. (Eds.). (1973b). The prevention and control of robbery: Summary. Davis, CA: University of California.

"This study has primarily been concerned with describing the patterns of robbery in a single American city–Oakland, California–and the response of the criminal justice agencies in that city to the crime. It is an exploratory study designed to produce the kind of detailed, integrated information necessary for serious thinking and planning about the subject....The findings of the study do...bring to light some important things that have been unknown or little understood (pp. 3-4)."

Feldman, M. (1977). Criminal behavior: A psychological analysis. New York: Wiley.

Felson, M. (1983). The ecology of crime. In Encyclopedia of Crime and Justice. New York: Free Press-Macmillan.

Felson, M. (1986). Predicting crime potential at any point on the city map. In P. Figlio, S. Hakim, & G. Rengert (Eds.), Metropolitan crime patterns (139-160). New York: Criminal Justice Press.

Felson, M. (1987). Routine activities and crime prevention in the developing metropolis. Criminology, 25, 911-931.

Felson, M., & Cohen, L. (1980). Human ecology and crime: A routine activity approach. Human Ecology, 8, 389-406.

Figlio, P.,. Hakim, S., & Rengert, G. (Eds.). (1986). Metropolitan crime patterns. New York: Criminal Justice Press.

Fisher, B. S. (in press). Neighborhood business proprietors' reactions to crime. Journal of Security Administration.

Fisher, B. S., & Nasar, J. L. (1991, July). Prospect and refuge: Fear of crime in and the building design characteristics. Paper presented at the Joint ASCP and ASEOP International Conference, Oxford, England.

Fisher, B. S., & Nasar, J. L. (1992). Fear of crime in relation to three exterior site features: Prospect, refuge, and escape. Environment and Behavior, 24, 35-65.

"This article examines fear of crime in relation to exterior site features...The authors propose and test a theoretical model that posits that places that afford offenders refuge, and victims limited prospect and escape, will be seen as unsafe...The findings confirmed that fear of crime was highest in areas with refuge for potential offenders and low prospect and escape for potential victims."

Fleming, R., & Burrows, J. (1986). The case for lighting as a means of preventing crime. Home Office Research Bulletin, 22, 14-17. London: H.M.S.O.

Fletcher, J. E. (1983). Assessing the impact of actual and perceived safety and security problems on park use and enjoyment. Journal of Park and Recreation Administration, 1, 21-36.

Florida Center for Community Design & Research. (1993). Safe schools design guidelines: Recommendations for a safe & secure environment in Florida's public schools (Project No. 4950-33-10-056-LO).

Fowler, F., & Mangione, T. (1979). Reducing residential crime and fear: The Hartford neighborhood prevention program. Boston, MA: Center for Survey Research, The University of Massechusetts, Boston, the Joint Center for Urban Studies of MIT and Harvard University, and Hartford Institiute of Criminal and Social Justice.

Fowler, F., & Mangione, T. (1982). Neighborhood crime, fear, and social control: A second look at the Hartford Program. Washington, DC: Center for Survey Research.

Fowler, F., & Mangione, T. (1986). A three-pronged effort to reduce crime and fear of crime: The Hartford experiment. In D. Rosenbaum (Ed.), Community crime prevention: Does it work?. Beverly Hills, CA: Sage Publications.

Francis, M. (1984). Some different meanings attached to a city park and community gardens. Landscape Journal, 101-112.

Furstenberg, F. (1971). Public reaction to crime in the streets. The American Scholar, 40, 601-610.

Gabor, T. (1981). The crime displacement hypothesis: An empirical examination. Crime and Delinquency, 27, 390-404.

Gardner, R. A. (1978). Design for safe neighborhoods: The environmental security planning and design process. Washington, DC: National Institute of Law Enforcement and Criminal Justice.

This manual describes the concept of 'environmental security', a comprehensive planning process for analyzing and understanding neighborhood crime problems. The manual emphasizes a preventative orientation to crime, utilizing physically and socially 'reinforcing' solutions. *

Garofalo, J. (1977a). Public opinion about crime: The attitudes of victims and nonvictims in selected cities. Washington, DC: U.S. Government Printing Office.

Garofalo, J. (1977b). Victimization and the fear of crime in major cities. Paper presented at the Annual Conference of the American Association for Public Opinion Research, Buck Hill Falls, PA.

Garofalo, J. (1979). Victimization and the fear of crime. Journal of Research in Crime and Delinquency, 16, 80-97.

Gates, L., & Rohe, W. (1987). Fear and reactions to crime. A revised model. Urban Affairs Quarterly, 22, 425-453.

Geason, S., & Wilson, P. R. (1989). Designing out crime: Crime prevention through environmental design. Canberra, Australia: Australian Institute of Criminology.

Georges-Abeyie, D. E., & Harries, K. D. (Eds.). (1980). Crime: A spatial perspective. New York: Columbia University Press.

Gibbs, J., & Shelly, P. (1982). Life in the fast lane: A retrospective view by commercial thieves. Journal of Research in Crime and Delinquency, 19, 299-330.

Godbey, G. (1980). The relationship of crime and fear of crime among the elderly to use of public recreation and parks. Washington, DC: American Association of Retired Persons.

Godbey, G. (1981). Old people and urban parks: An exploratory study. Washington, DC: American Association of Retired Persons.

Goffman, E. (1963). Behavior in public places: Notes on social organization of gathering. New York: Free Press.

Gold, S. M. (1969). A concept for outdoor recreation planning in the inner city. Unpublished doctoral dissertation, University of Michigan, Ann Arbor, MI.

Gold, S. M. (1970). Urban violence and contemporary defensive cities. Journal of American Institute of Planners, 36, 146-159.

Gold, S. M. (1972). Nonuse of neighborhood parks. Journal of the American Institute of Planners, 38, 369-378.

Somewhat dated, this article discusses various implications/causes of park non-use, including personal safety. Causes of non-use presented include: Social Restraints, Access, Site Characteristics and Personal Safety. The author discusses implications

and offers possible solutions to the problems discussed. This work may be of more use for gaining a perspective on how the field has progressed than for realizing new ideas.

Goldberg, F., & MIchelson, W. (1978). Defensible space as a factor in combatting fear among the elderly: Evidence from Sherbourne Lanes. Crime Prevention Through Environmental Design Theory Compendium. Arlington, VA: Westinghouse National Issues Center.

Goodman, L. H., Miller, T., & DeForest, P. (1966). A study of the deterrent value of crime prevention measures as perceived by criminal offenders. Washington, DC: Bureau of Social Science Research.

Gordon, M. T., & Riger, S. (1978). The fear of rape project. Victimology: An International Journal, 3, 346-347.

Gordon, M. T., Riger, S., LeBailly, R., & Health, L. (1981). Crime, women and the quality of urban life. In C. Simpson (Ed.), Women and the American city. Chicago: Unversity of Chicago Press.

Greenberg, S. W. (1986). Fear and its relationship to crime, neighborhood deterioration and informal social control. In J. M. Bryne and R. J. Sampson (Eds.), The Social Ecology of Crime (pp. 47-62). New York: Springer Verlag.

Greenberg, S. W., & Robe, W. M. (1984). Neighborhood design and crime: A test of two perspectives. American Planning Association Journal, 5, 48-61.

*(This) paper assesses the validity of two perspectives on the effect of the physical design of buildings, sites, and neighborhoods on crime–the defensible space approach and the opportunity approach. Study examined differences in physical characteristics and various dimensions of informal social control within and among three pairs of neighborhoods matched on racial composition and economic status but with distinctly different crime levels. Study results lend far more support to opportunity model of crime in residential areas than to the defensible space model.**

Greenberg, S. W., Williams, J. R., & Rohe, W. M. (1982). Safety in urban neighborhoods: A comparison of physical characteristics and informal territorial control in high and low crime neighborhoods. Population and Environment, 5, 141-165.

Griswold, D. B. (1992). Crime prevention and commercial burglary: A time series analysis. In R. V. Clarke (Ed.), Situational crime prevention: Successful case studies. New York: Harrow & Heston.

Grove, G. (1976). Role theory considered as an influence on criminal and deviant behavior in the Utah State Park system–a manager problem. Unpublished masters' thesis, Utah State University, Logan, UT.

Hagedorn, J. (1990). Back in the field again: Gang research in the Nineties. In C. R. Huff (Ed.), Gangs in America. Newbury Park, CA: Sage.

Hammitt, W. E. (1980). Designing mystery into trail-landscape experiences. Journal of Interpretation, 5, 16-19.

The author found that high visual preference was found for trail hikers where scenes in photos showed a trail winding out of view, but only when dense vegetation obscured the receding trail. This lack of information is termed 'mystery'. [While mystery may prove pleasing in some safe settings (such as remote Cranberry Glades, WV, as in this study), it may make people feel unsafe in more urban settings.]

Harold Lewis Malt Associates, Inc. (1972). An analysis of public safety as related to the incidence of crime in parks and recreation areas in central cities. Washington, DC: U.S. Department of Housing and Urban Development.

Harries, K. D. (1974). The geography of crime and justice. New York: McGraw-Hill.

Harries, K. D. (1980). Crime and the environment. Springfield, IL: Charles C. Thomas.

*"This monograph reviews the environments of criminogenesis from a broad ecological perspective, emphasizing both human and physical phenomena. Human environments are examined from both the macro- and microlevel perspectives...At the micro-, or intrurban, scale a number of recent studies are examined, their strengths and weaknesses underlined, and their essential findings synthesized."***

Harris, J. (1979). Lawless behavior: Are park managers part of the problem? California Park and Recreation Society, 35, 42-43.

Harris, J., & Brown, P. (1972). Law enforcement in the forest. Journal of Forestry, 70, 750-751.

Hartnagel, T. F. (1979). The perception and fear of crime: Implications for neighborhood cohesion, social activity, and community affect. Social Forces, 58, 176-193.

"This research examines the relationship between the perception and fear of crime on the one hand and neighborhood cohesion, social activity and affect for the community on the other...The hypotheses that the perception of increased crime and the fear of crime would be inversely related to neighborhood cohesion and social activity were not supported. But as hypothesized, the fear of crime was negatively related to affect for the community."

Hassinger, J. R. (1983). Attributes of urban environments feared by handgun carriers. EDRA (Environmental Design Research Association), 14, 113-117.

Hassinger, J. R. (1985). Fear of crime in public environments. Journal of Architectural and Planning Research, 2, 289-300.

Heal, K., & Laycock, G. (Eds.). (1986). Situational crime prevention: From theory into practice. London: H.M.S.O.

Healy, R. J. (1968). Design for security. New York: John Wiley & Sons.

Heinzelmann, F. (1981). Crime prevention and the physical environment. In D. Lewis (Ed.), Reactions to Crime (pp. 87-101). Beverly Hills, CA: Sage.

Hierlihy, D. (1991). Green spaces/safer places: A forum on planning safer parks for women. (Available from Safe City Committee, City of Toronto Planning & Development Dept., 18th Floor, East Tower, City Hall, Toronto, Ontario M5H 2N2).

Henig, J., & Maxfield, M. G., (1978). Reducing fear of crime: Strategies for intervention. Victimology, 3, 297-313.

Henshel, R., & Carey, S. (1975). Deviance, deterrence and knowledge of sanctions. In R. Henshel & R. Silverman (Eds.), Perception in Criminology. New York: Columbia University Press.

Herbert, D. (1982). The geography of urban crime. Harlow, UK: Longman.

"This book is the latest in a series called Topics in Applied Geography. (It) provides the reader with a superficial overview of the field, some useful examples for teachers; presents detailed description of spatial patterns, distributions, and correlates and explores ways in which geographical research can widen its horizons and hopefully reorder its priorities, especially with regard to policy formulation."

Herbert, D., & Hyde, S. (1984). Residential crime and the urban environment. A report for the Economic and Social Research Council.

Herbert, D., & Hyde, S. (1985). Environmental criminology: Testing some area hypotheses. Transactions I.B.G., 10, 259-274.

Herzog, T., & Smith, G. A. (1988). Danger, mystery, and environmental preference. Environment and Behavior, 20, 320-344.

Heywood, I., Hall, N., & Redhead, P. (1992). Is there a role for spatial information systems in formulating multi-agency crime prevention strategies? In D. J. Evans, N. R. Fyfe and D. T. Herbert (Eds.), Crime, policing and place: Essays in environmental criminology (pp. 73-92). New York: Routledge.

*"This chapter considers...a spatial database and geographic information system (GIS) approach to the storage, management and manipulation of crime-related community data."***

Hindelang, M. (1974). Public opinion regarding crime, criminal justice, and related topics. Journal of Research in Crime and Delinquency, 11, 101-116.

Hindelang, M. (1976). Criminal victimizations in eight American cities: A descriptive analysis of common theft and assault. Cambridge, MA: Ballinger.

Hindelang, M., Gottfredson, M., & Garafolo, J. (1978). Victims of personal crime: An empirical foundation for a theory of personal victimization. Cambridge, MA: Ballinger.

Hope, T. & Shaw, M. (Eds.). (1988). Communities and crime reduction . London: H.M.S.O.

"The purpose of this book, which represents the outcome of a conference convened by the Home Office Research and Planning Unit in 1986, is to bring together some current ideas, experience, practice and policy, from those who have been working on the problems of how to prevent crime....In so doing, it is hoped to clarify directions for future policy and practice. The authors, coming as they do from a number of different countries and backgrounds, illustrate the current collective concern with crime prevention (p. 1)."

Hudson, C. (1983). Residential burglary. Home Office Research Bulletin, 15. London: H.M.S.O.

Hull, R. B., & Harvey, A. (1989). Explaining the emotion people experience in suburban parks. Environment and Behavior, 21, 323-345.

"In general, pleasure increases as tree density increases and understory density decreases...arousal increases with increasing understory vegetation density...and people prefer parks that are both pleasant and arousing. Results suggest that considerable control over affect can be exercised through manipulation of a park's physical characteristics." The implications of these findings for safety are reflected in the studies which have investigated vegetation from the safety standpoint. Those results of those works converge with those of these authors in that lower vegetation is perceived negatively and arousal increases with increased understory. Heightened feelings of awareness from a perception of lowered safety may account for this study's findings on increased arousal.

Hunter, A., & Baumer, T. (1982). Street traffic, social integration and fear of crime. Sociological Inquiry, 52, 122-131.

Hunter, R. D., & Jeffery, C. R. (1992). Preventing convenience store robbery through environmental design. In R. V. Clarke (Ed.), Situational crime prevention: Successful case studies. New York: Harrow & Heston.

Jackson, B. (1969). A thief's primer. New York: MacMillan.

This book delves into the life and definition of so called 'career criminals'. In a unique format it consists of the recorded and recompiled comments of such an individual, in this case a thief, whose trust the author had earned during contact within a correctional facility. Although dated, the thief's discourses are detailed and comprehensive.

Jacobs, J. (1961). The death and life of great American cities. New York: Random House.

Jeffery, C. R. (1976). Criminal behavior and the physical environment. The American Behavioral Scientist, 20, 149-174.

*Three articles in this issue are most noteworthy: Jeffery's 'Criminal behavior and the physical environment: A perspective,' Dennis C. Duffala's 'Convenience stores, armed robbery, and physical environmental features,' and Thomas A. Reppetto's 'Crime prevention through environmental policy: A critique.' **

Jeffery, C. R. (1977). Crime prevention through environmental design. Beverly Hills: Sage Publications.

*Environmental crime control adheres to the classical principles of prevention of crime before it occurs, and certainty of consequence for behavior, but shifts emphasis from punishment and the individual offender to reinforcement and the environment.**

Jeffery, C. R., Hunter, D., & Griswood, J. (1987). Crime prevention and computer analyses of convenience store robberies in Tallahassee, Florida. Paper presented at Florida State University, Tallahassee, FL.

Jeffrey, M. (1968). A burglar's life. Sydney: Angus and Robertson.

Katzman, M. (1980). The contribution of crime to urban decline. Urban Studies, 17, 277-286.

Keeley, R. M., & Edney, J. J. (1983). Model house designs for privacy, security, and social interaction. Journal of Social Psychology, 119, 219-228.

This brief paper was purposed to study interaction between the sexes as "(c)ollege undergraduates were asked to construct models of houses that would promote privacy, security, or social interaction for occupants." While interesting for its own sake, the study likewise touches lightly upon security factors as perceived by the study population.

Kirk, N. L. (1986). Perceptions of safety in the campus environment. Unpublished paper, University of Illinios at Urbana-Champaign, Urbana.

Kirk, N. L. (1988). Factors affecting perceptions of safety in a campus environment. EDRA (Environmental Design Research Association), 19, 215-222.

Kirk, N. L. (1988). Factors affecting perceptions of safety in a campus environment. In J. Sime (Ed.), Safety in the built environment (pp. 285-296). London: E. & F.N. Spon.

Kirk, N. L. (1989). Factors affecting perceptions of social safety in public open spaces. Unpublished masters thesis, University of Illinios at Urbana-Champaign, Urbana.

Koehler, C. T. (1988). Urban design and crime: A partially annotated bibliography. Chicago, IL: Council of Planning Librarians, No. 218.

This work consists of 1) a brief Introduction, 2) a section on General Theory and Applications, and 3) a section on Urban Design and Crime, yielding a total of twenty-one pages in all. The majority of works cited pertain to urban planning and architecture, specifically housing. While many of the pieces listed in this work may also be found in this bibliography, there are a great many which are not listed herein.

Kowalski, G. S., Dittmann, R. L., Jr., & Bung, W. L. (1980). Spatial distribution of criminal offenses by States, 1970-1976. Journal of Research in Crime and Delinquincy, 17, 4-25.

Kramer, J. J. (Ed.). (1977). The role of behavioral sciences in physical security. National Bureau of Standards.

Kreps, G. M (1977). A study of crime in rural Ohio: The relationship between ecological factors and a rural crime index (Doctoral dissertation, Ohio State University). Dissertation Abstracts International, 39 (5). (University Microfilms No. 77-24, 653)

Krupat, E., & Kubzansky, P. E. (1987). Designing to deter crime. Psychology Today, (Oct.), 58-61.

Koppel, H. (1987). Lifetime likelihood of victimization. Technical Report. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

Laidles, R. (1970). Criminal activity in selected Seattle parks. Seattle, WA: Department of Parks and Recreation.

Latane, B., & Darley, J. (1970). The unresponsive bystander: Why doesn't he help? New York: Appleton-Century-Croft.

Laycock, G., & Heal, K. (1989). Crime prevention: The British experience. In D. Evans & D. Herbert (Eds.), The geography of crime. New York: Routledge.

Leach, B,. Lesiuk, E., & Morton, P .E.. (1986). Perceptions of fear in the urban environment. Women and Environments, Spring, 10-12.

LeBeau, J. L. (1987a). Environmental design as a rationale for prevention. In E. H. Johnson (Ed.), Handbook on crime

LeBeau, J. L. (1987b). The journey to rape: Geographic distance and the rapist's method of approaching the victim. Journal of Police Science and Administration, 15, 129-161.

Lee, R. (1972). The social definition of outdoor recreation places. In W. Burch (Ed.), Social behavior, natural resources and the environment. New York: Harper & Row.

Lee, Y., & Egan, F. (1972). The geography of urban crime: The spatial pattern of serious crime in the City of Denver. Proceedings of the Association of American Geographers, 4, 59-64.

LeJeune, R. (1977). The management of a mugging. Urban Life, 6, 123-148.

LeJeune, R., & Alex, N. (1973). On being mugged: The event and its aftermath. Urban Life and Culture, (October), 259-287.

The authors interviewed 24 victims of 'muggings', having them relive their experiences, their feelings, and any meanings they attached to the incident. The article was written at a time when this nation was just beginning to pay attention to this form of personal attack. Hence, much of what it has to offer is victim response, rather than empirical data or quantifiable data. This may be attributable to the sociological background of the researchers. None-the-less, the reader can expect to find insights into the process of muggings (including victim response), but more so into the changed psyche of the victim, who, the authors say, begins to see the city as "a jungle". Also of considerable interest is the discussion of victims' feelings of safety in familiar environments. The authors suggest that "ecological sentiments may act as blinders" to changes in safety. That is, they failed to accept or recognize how their environment was changing over the years, or even over a matter of minutes in the case of a mugging itself.

Lentz, P. Sternhall, R., & Lyle, C. (1977, April). The limits of lighting: The New Orleans experiment in crime reduction. The Mayor's Criminal Justice Coordinating Council.

Letkemann, P. (1973). Crime as work. Englewood Cliffs, NJ: Prentice-Hall.

Lewis, D. A. (Ed.). (1981). Reactions to crime. Beverly Hills, CA: Sage.

Lewis, D. A., & Maxfield, M. G. (1980). Fear in the neighborhoods: An investigation of the impact of crime. Journal of Research in Crime and Delinquency, 17, 160-189.

Lewis, D. A., & Salem, G. (1981). Community crime prevention: An analysis of a developing strategy. Crime and Delinquency, 27, 405-421.

Lewis, H. (unknown). An analysis of public safety as related to the incidents of crime in parks and public areas. (NTIS No. PB220770.)

Ley, D., & Cybriwsky, R. (1974). Urban graffiti as territorial markers. Annals of the Association of American Geographers, 64, 491-505.

Ley, D., & Cybriwsky, R. (1974). The spacial ecology of stripped cars. Environment and Behavior, 6, 53-67.

Logie, R., Wright, R., & Decker, S. (1992). Recognition memory performance and residential burglary. Applied Cognitive Psychology, 6, 109-123.

"This paper reports two studies of recognition memory performance in groups of juvenile residential burglars. Memory performance of the burglars was compared in Experiment 1 with police officers and a group of adult householders. In Experiment 2 a second group of juvenile burglars was compared with a group of juvenile offenders who had no experience of housebreaking. All groups were asked first to identify houses in photographs that would be attractive or otherwise to burglars. Subsequently, subjects were given a surprise recognition test where, in some photographs, physical features of houses was significantly better members of the law-abiding public. In Experiment 2 the juvenile burglars' recognition memory performance was significantly better than the other offenders. These results are interpreted in terms of the burglary subjects possessing a level of expertise associated with their experience of offending."

Lowman, J. (1983). Geography, crime and social control. Unpublished doctoral dissertation, University of British Columbia, Vancouver, BC, Canada.

Lowman, J. (1989). The geography of social control: Clarifying some themes. In D. Evans & D. Herbert (Eds.), The geography of crime. New York: Routledge.

Luedtke, G. & Associates (1970). Crime and the physical city: Neighborhood design techniques for crime prevention. Springfield, VA: National Technical Information Service.

Lynch, G., & Atkins, S. (1988). The influence of personal security fears on women's travel patterns. Transportation, 15, 275-277.

MacDonald, J. E., & Gifford, R. (1989). Territorial cues and defensible space theory: The burglar's point of view. Journal of Environmental Psychology, 9, 193-205.

To test Newman's 'defensible space' theory incarcerated burglars were interviewed as they rated photos taken of residences on "vulnerability". "As the theory predicts, easily surveillable houses were rated as the least vulnerable targets. Contrary to the theory, evidence of territorial concern had no effect...or actually increased vulnerability.

Maguire, M. (1980). The impact of burglary upon victims. British Journal of Criminology, 20, 261-275.

Maguire, M., & Bennett, T. (1982). Burglary in a dwelling: The offense, the offender, and the victim. London: Heinemann.

Maltz, M. D., Gordon, A. C., & Friedman, W. (1990). Mapping crime in its community setting: Event geography analysis. New York: Springer-Verlag.

Mann, L., & Hageirk, G. (1971, September). The new environmentalism: Behaviorism and design. Journal of the American Institute of Planners.

Martin, S. (1994, August). Ripped off: In the time it takes you to read this headline, this man can steal your bike. Bicycling, pp. 41-45.

This article, which discusses means for theft of bicycles with bike thieves, reports briefly on the the occurance of so-called "bike-jackings" in urban recreation areas.

Matthews, R. (1992). Developing more effective strategies for curbing prostitution. In R. V. Clarke (Ed.), Situational crime prevention: Successful case studies. New York: Harrow & Heston.

Mawby, R. I. (1977). Defensible space: A theoretical and empirical appraisal. Urban Studies, 14, 169-179.

*The author argues that by oversimplifying the nature of crime and the qualities of defensible space, Newman has failed to consider the possibilities for contradictions within the key elements of the theory that might also threaten security.**

Mayhew, P. (1979). Defensible space: The current status of a crime prevention theory. The Howard Journal, 18, 150-159.

Mayhew, P. (1984). Target hardening: How much of an answer. In R. Clarke & T. Hope (Eds.), Coping with burglary. Boston: Kluwe-Nijhoff.

***Mayhew, P., Clarke, R., Burrows, J., Hough, J., & Winchester, S. (1979). Crime in public view* (Home Office Research Study No. 49). London: H.M.S.O.**

*An excellent short monograph assessing the use of surveillance to reduce different types of crime. The authors argue that 'casual' surveillance by the public is generally less effective than surveillance by residents and employees of an environment.**

Mayhew, P., Clarke, R., Sturman, A., & Hough, M. (1976). Crime as opportunity (Home Office Research Study No. 34). London: H.M.S.O.

McCormick, M. (1974). Robbery prevention: What the literature reveals–A literature review and annotated bibliography with a list of information sources. La Jolla, CA: Western Behavioral Sciences Institute.

McDonald, A. D., & Newcomer, R. J. (1973). Differences in perception of a city park as a supportive or threatening environment. In D. Gray & D. A. Pelegrino (Eds.), Reflections on the recreation and park movement. Dubuque, IA: W. C. Brown Co.

"This paper reports on a pilot study which was intended to find out how and in what ways a city park is important, i.e., supportive to its elderly users and to determine why other elderly persons who live in proximity to the park do not use it."

McInnes, P., Burgess, G., Hann, R., & Axon, L. (1982). The environmental design and management (EDM) approach to crime prevention in residential environments (User Report, No. 1984-84). Ottawa, Canada: Report for the Research Division of the Department of the Solicitor General, Programs Branch.

McIntyre, J. (1967). Public attitudes toward crime and law enforcement. Annals, 374, 34-46.

McNamara, J. (1984). Safe and sane: The sensible way to protect yourself, your loved ones, your property and possessions. New York: Putnam.

McPherson, M. (1978). Realities and perception of crime at the neighborhood level. Victimology, 3, 319-328.

Merry, S. E. (1981). Defensible space undefended: Social factors in crime control through environmental design. Urban Affairs Quarterly, 16, 397-422.

*"The notion that crime can be prevented through environmental design is a recent and promising idea emerging from the fields of architecture and urban planning. However, despite intriguing correlations between crime rates and features of building design, we understand little about the social processes which induce residents to intervene to stop crimes and disorderly behavior in the spaces around them. This article investigates the conditions under which residents of an American inner-city housing project act and fail to act to defend both architecturally defensible and undefensible spaces. Because of the fragmented social fabric, even architecturally defensible spaces here are undefended."***

Merton Borough. (1994). Designing out crime. Morden, Surrey: Available from Planning Services Dept., Merton Civic Centre, London Road,Morden, Surrey SM4 5DX, UK.

Minor, W. (1978). Deterrence research: Problems of theory and method. Paper presented at the annual meeting of the Law Society Association, Minneapolis, MN.

Molumby, T. (1976). Patterns of crime in a university housing project. American Behavioral Scientist, 20, 247-259.

The author of this early work employs spatial analysis to study location of crimes. The study lacks a theoretical basis for conclusions, or hypotheses to test spatial theory. Causes of patterns in the study may reflect some reading into the findings as far as causes of patterns are concerned.

Molumby, T. (unknown). Evalution of the effect of physical design changes on criminal behavior (Doctoral dissertation, St. Ambrose University).

Moran, R., & Dolphin, C. (1986). The defensible space concept: Theoretical and operational explication. Environment and Behavior, 18, 396-416.

More, T. A. (1985). Central city parks: A behavioral perspective. Unpublished paper, Burlington, VT: University of Vermont.

The author "monitored the use of two central city parks–one in Boston, one in Hartford–around the clock during the summer of 1978, recording the social characteristics and behaviors of the park users." The result is a unique look into the patterns of use in two urban parks. Included within the study were figures on deviant behavior (e.g., selling marijuana), problem behaviors (e.g., fighting, begging), and other actions which were either unlawful or indicated possible criminal characteristics. The findings suggested "that people's use of public parks can be influenced by the park's landscape." Specific design elements are discussed with regard to their impact on users (e.g., vegetation, pathways, edge effects).

Moriarty, T. (1975). Crime, commitment and the responsive bystander: Two field experiments. Journal of Personality and Social Psychology, 31, 370-376.

Muluhill, E., & Tumin, M. (1969). Crimes of violence, 1-3. Washington, DC: U.S. Government Printing Office.

Musheno, M. C., Levine, J. P., & Palumbo, D. J. (1977, February). Is "defensible space" a defensible theory?: An evaluation of closed-circuit television as a crime prevention strategy. Presented at the National Conference on Criminal Justice sponsored by the Law Enforcement Assistance Administration, Washington, DC.

Nager, A. R., & Wenworth, W. R. (1976). Bryant Park: A comprehensive evaluation of its image and use with implications for urban open space design. New York: City University of New York, Center for Human Environments.

Nasar, J.L., & Fisher, B.S. (1992). Design for vulnerability: Cues and reactions to fear of crime. Sociology and Social Research, 76, 48-58.

The authors describe physical environment cues which may affect the public's fear of crime. In the process they developed a theory regarding the relationship between these cues, fear, and consequent reactions. The study examined the physical environment of university campuses. Cues which heightened fear were: "poor prospect for the passerby due to inadequate lighting, blocked escape for the passerby, and concealment for the offender". Responses to cues and fear were also recorded. The study's results are consistent with recent findings which suggest that informed design of micro-level physical settings and their features may be an effective means for deterring criminals. Consequently, the authors suggest that it may also be effective at reducing fear. As this and other studies point out, although fear may not be an adequate predictor of crime, it has salient negative consequences which effect people even in the absence of experienced crime. Article includes photographs and site plans of the study areas.

Nasar, J. L., & Fisher, B. S. (1993). "Hot spots" of fear and crime: A multi-method investigation. Journal of Environmental Psychology, 13, 187-206.

This study takes a different slant on examining the geography of crime. It differentiates between macro and micro-level site characteristics, examining how the latter may contribute to concentrated areas of crime, or 'hot spots'. Although this article does not offer the first investigation of hot spots, it does provide the most thorough discussion to date. Prospect, concealment and boundedness were the proximate cues studied, with female college students and campus police serving as subjects. Fear was also examined on the same levels. "Hot spots of fear and crime converged at the micro level. Both fear and crime increased in areas characterized by low prospect, high concealment, and high boundedness." Design measures are discussed regarding micro level deterrence (e.g., lighting, vegetation maintenance, cameras).

Nasar, J. L., Fisher, B. S., & Grannis, M. (1993). Proximate physical cues to fear of crime. In J. L. Nasar (Ed.), Landscape and urban planning: Special issue on urban design research, 26, 161-78.

Nasar, J. L., Julian, D., Buchman, S., Humphreys, D., & Mrohaly, M. (1983). The emotional quality of scenes and observation points: A look at prospect and refuge. Landscape Planning, 10, 355-361.

Nee, C., & Taylor, M. (1988). Residential burglary in the Republic of Ireland: A situational perspective. The Howard Journal, 27, 105-116.

Neiburg, H. (1974). Crime prevention by urban design. Society, 12, 41-47.

Newman, O. (1972a). Defensible space: Crime prevention through urban planning. New York: Macmillan.

*The original publication of this book in 1972 changed the nature of the crime prevention and environmental design field. The book details and describes the 'defensible space' theory, and includes extensive discussion of crime and the physical form of housing based on crime data analysis from New York City public housing.**

Newman, O. (1972b). Defensible space: People and design in the violent city. London: Architectural Press.

Newman, O. (1973). Architectural design for crime prevention. Washington, DC: U.S. Government Printing Office.

Newman, O. (1973). A design for improving residential security. Washington, DC: U.S. Government Printing Office.

Newman, O. (1976). Design guidelines for creating defensible spaces. Washington, DC: U.S. Government Printing Office.

*This handbook examines how different social, physical, managerial, and economic factors combine to produce secure housing. Other chapters cover the evolution of multi-family housing, design guidelines for buildings, site planning guidelines, two prototypical designs, and discussions regarding security hardware.**

Newman, O., & Frank, K. (1980). Factors influencing crime and instability in urban housing developments. Washington, DC: National Institute of Justice, LEAA, U.S. Government Printing Office.

Newman, O., & Frank, K. (1982). The effects of building size on personal crime and fear of crime. Population and Environment, 5, 203-220.

Normandeau, A. (1968). Trends and patterns in crimes of robbery. (Doctoral dissertation, University of Pennsylvania.)

O'Donnell, C. R., & Lydgate, T. (1980). The relationship to crimes of physical resources. Environment and Behavior, 12, 207-230.

Page, R. A., & Moss, M. K. (1976). Environmental influences on aggression: The effects of darkness and proximity of victim. Journal of Applied Social Psychology, 6, 126-133.

This brief paper offers support for the authors' predictions concerning the relationship between lighting and aggression. In a somewhat unusual test, subjects' willingness to punish fellow participants via an electrical shock system (which offered varying magnitudes of current) was monitored as contact with the 'victim' was decreased via lighting and physical proximity. Shocks tended to be more powerful and lasted longer when rooms were more dimly lit. These findings, if found to be sound, could expand the theoretical support to the age old belief that lit areas are safer.

Painter, K. (1992). Different worlds: The spatial, temporal and social dimensions of female victimization. In D. J. Evans, N. R. Fyfe and D. T. Herbert (Eds.), Crime, policing and place: Essays in environmental criminology (pp. 164-195). New York: Routledge.

Paternoster, R., Saltzman, L., Chiricos, T., & Waldo, G. (1982). Perceived risk and deterrence: Methodological artifacts in perceptual deterrence research. Journal of Criminal Law and Criminology, 73, 1238-1258.

Patterson, A. H. (1975). Crowding, crime, and the designed environment: A social control perspective. Paper presented at the American Psychological Association Meeting.

Patterson, A. H. (1977). Territorial behavior and fear of crime in the elderly. State College, PA: Pennsylvania State University.

Patterson, A. H. (1978). Crime and fear among the elderly: The role of the physical environment. Crime Prevention Through Environmental Design Compendium. Arlington, VA: Westinghouse National Issues Center.

Patterson, A. H. (1978). Territorial behavior and fear of crime in the elderly. Environmental Behaviour and Non-verbal Behaviour, 2, 131-144.

Payne, J., Braunstein, M., & Carroll, J. (1978). Exploring predecisional behavior: An alternative approach to decision research. Organizational Behavior and Human Performance, 22, 17-44.

Pease, K. (1992). Preventing burglary on a British public housing estate. In R. V. Clarke (Ed.), Situational crime prevention: Successful case studies. New York: Harrow & Heston.

Perkins, D. D., Meeks, J. W., & Taylor, R. B. (1992). The physical environment of street blocks and resident perceptions of crime and disorder: Implications of theory and measurement. Journal of Environmental Psychology, 12, 21-34.

With data based on over 400 subject interviews, the authors developed and tested both a procedure and an instrument to assess "crime- and fear-related features" of the urban residential settings. Various cues were examined (i.e., symbols of social and physical disorder, territorial functioning, and architectural 'defensible space' features) while, theoretically, the 'disorder' thesis, which suggests that residents' confidence in their neighborhood will be negatively impacted by physical incivilities, was tested, with support being found for it. Their findings are in agreement with many others. The authors point out that an important next step is to isolate "exactly what aspects of the environment most affect resident perceptions and what the nature of those perceptions are."

Perkins, D. D., Wandersman, A., Rich, R. C., & Taylor, R. B. (1993). The physical environment of street crime: Defensible space, territoriality and incivilities. Journal of Environmental Psychology, 13, 29-49.

Perlgut, D. (1983). Vandalism: The environmental crime. Australian Journal of Social Issues, 18, 209-216.

*Because it is committed against physical objects and because physical design and setting play an important role, vandalism is the ultimate 'environmental' crime. Often misunderstood by designers, planners, facility managers, and administrators, vandalism can be more effectively controlled through an understanding of the patterns and environmental context in which it occurs. Social situations conducive to vandalism are discussed, e.g., unstable neighborhoods, insensitive school administrators and teachers, and workplaces with rapid staff turnover. S. Cohen's typology of vandalism and methods for preventing or controlling it ('Campaigning against vandalism.' In Vandalism, edited by C. Ward. London: Architectural Press, 1973) are described.**

Perry, K. (1984). Measuring the effectiveness of neighborhood crime watch. Law and Order, 32, 37-40.

Pesce, E. J., Kohn, I. R., & Kaplan, H. M. (1978, July). Crime prevention through environmental design: Final report, phases II and III, July 1976-1978. Arlington, VA: Westinghouse National Issues Center.

Peterson, M., Braiker, H., & Polich, S. (1981). Who commits crimes: A survey of prison inmates. Cambridge, MA: Oelgeschlager, Gunn and Hain.

Pettiway, L. E. (1982). Mobility of robbery and burglary offenders: Ghetto and nonghetto spaces. Urban Affairs Quarterly, 18, 255-270.

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This study chronicles the introduction of crime deterrence measures in two parking areas. Recognizing that theft of autos and thefts from autos require different preventative measures, the author examined changes in each type of crime. The author suggests that adequate surveillance, either formal or informal, is the most important measure which can be taken in attempting to reduce offenses. Design solutions are offered for proactive and reactive attempts to secure parking areas, including parking structures.

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*(The) author investigates the association of social and environmental variables and criminal activity by comparing geographical areas of a country or communities and neighborhoods within a city. He approaches the subject in terms of considering the quality of life in communities undergoing change. Identifies a number of critical criminolgenic factors: (1) location of offenders relative to their victims, (2) attractiveness of communities to offenders, (3) offender awareness of criminal opportunities, (4) offender case of entry and egress of communities to be victimized, (5) mixed land use, (6) the location of certain legal and illegal businesses.**

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This study included 299 women from metropolitan cities around the United States. The authors identified a pair of precautionary actions used by women: "avoiding dangerous situations and managing risks in the face of possible danger." Fear, perceived physical competence, race and education were found to be strong predictors of avoidance. Proximal physical cues which indicate danger or decay (e.g., vandalism) were found to prompt risk-management more so than do general crime rates. This ties in with micro-environment findings and 'hot spot' research which suggest that individuals react to a given situation rather than to regional or community crime patterns.

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This piece broke new ground as it exploring the following three objectives: "1) to determine whether judgments of personal safety in urban recreation sites show sufficient reliability to be usefully studied, 2) to use such judgments to identify park design features affecting perception of security in urban parks, and 3) to identify the relations between visibility, perceived security, and perceived attractiveness of urban parks." Findings showed "...high security is associated with open areas with long view distances and with signs of development and nearby populated areas. On the other hand, high scenic quality depends on the presence of natural vegetation....and is lowered by manmade features." Unfortunately, little similar research has been done thus far to further explore these important findings.

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This study is, apparently, very unique insofar as the physical feature it investigates. Parking areas, although central to the public's daily routines and frequently the scenes of personal assaults, receive little attention. A large group of subjects (college students) rated photographs of parking areas for attractiveness and security. Findings were similar to those of Schroeder and Anderson (1984) in that increased amounts of vegetation resulted in reduced ratings of perceived safety, although attractiveness ratings, given orderliness and proper upkeep, were generally higher. This suggests that, short of removing or severely pruning vegetation, consistent, quality upkeep of plants following a planting plan which suggests order may counter the potentially negative impacts of vegetation, while also improving aesthetic appeal.

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This study finds support for the ecological theory that when offenders, targets and a lack of guardians converge a criminal event results. Over 300,000 calls to police in Minneapolis were compared with addresses to which responses were made. It was found that some 50% of the calls came from only 3% of the places. These locations, termed 'hot spots', have been dealt with in a variety of manners, some of which the

authors discuss. They suggest that, although eradication of crime settings (e.g., crack houses) and of routine activities of criminals (e.g., bars) will not remove crime, regulating the "routine activities of places may be regulated far more easily than the routine activities of persons."

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Stewart, J., & McKenzie, R. L. (1978). Composing urban spaces for security, privacy and outlook. Landscape Architecture, 78, 392-398.

Stoks, F. G. (1982). Assessing urban public space environments for danger of violent crime-especially rape. (Doctoral dissertation, University of Washington, Seattle, 1982). Ann Arbor, MI: University Microfilms.

"This dissertation is an investigation of how physical design characteristics affect microspatial patterns of violent crime, especially rape in urban public places. A review of crime specific literature, spatial literature on crime and crime prevention literature finds that over a third of all violent crime occurs in urban public places, but little is known about the precise location or characteristics of the crime sites, or of conclusive effects of the physical environment on crime prevention.

Police incident reports were used to obtain data on 40 variables for 590 cases of rape occurring in Seattle during 1981. Data analysis of 20 variables provided evidence of external validity of the Seattle sample when compared with the results of several other studies. The remaining variables describe the spatial distribution of rape in Seattle. The sites of 65 of these cases, that occurred in urban public places, were inventoried using a checklist of 42 environmental variables derived in part from crime prevention literature and from an earlier pilot study. A series of linear discriminant analyses of this data showed that a set of six environmental variables affecting the offender's control over the victim, had statistical significance in discriminating between the sites of attempted and completed rape. These variables and their associated weights, in linear equation form, comprise a model for predicting precisely where rapes are likely to occur in urban public places. This model is refined to facilitate calculating the probability that a completed rape will occur for a given urban public place. Five applications of the model to urban public places in which rapes had occurred, led to successful prediction of the precise location of four of the actual rape sites - an outcome shown to be highly unlikely the result of chance alone. Applications of the findings and of the model for urban planning and urban design, are discussed in

*terms of how to make existing environments safer, or to design new environments to be safe. The appendices contain detailed frequency tables on all 82 of the variables surveyed."***

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Taylor, M., & Nee, C. (1988). The role of cues in simulated residential burglary: A preliminary investigation. British Journal of Criminology, 28, 396-401.

This study in the Republic of Ireland compared perceptions of burglars and householders using "free responding" to a simulated residential setting (using slides and map), effectively allowing subjects to "move through the simulated environment". Introduced is the concept of "vulnerability". Significant differences were found between the two subject groups, particularly with respect to intra-group response homogeneity, awareness of vulnerabilities, and 'route' of exploration taken, the burglars moving in a more systematic manner.

Taylor, R. B. (1982). The neighborhood physical environment and stress. In G. W. Evans (Ed.), Environmental Stress. New York: Cambridge University Press.

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Taylor, R. B., Gottfredson, S. D., & Brower, S. (1980). The defensibility of defensible space: A critical review. In T. Hirschi & M. Gottfredson (Eds.), Understanding crime. Beverly Hills, CA: Sage.

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This study utilized a model that included the factors mentioned in its title to investigate why some blocks have more incidents of crime, or higher fear levels, than do other blocks."(Their) model explained significant portions of crimes of violence to persons (18%) and block fear (37%)....(and)...variation in individual-level fear."

Taylor, R. B., Shumaker, S. A., & Gottfredson, S. (1985). Neighborhood-level links between physical features and local sentiments: Deterioration, fear of crime, and confidence. Journal of Architecture and Planning Research, 2, 261-275.

This study attempts "...to understand some of the roles that the physical environment may play at the neighborhood level...The results disconfirm some broad-gauged theories about neighborhood-level physical impacts that have been proposed."

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Toronto, City of. (1990, Oct.). City plan 1991: Planing for a safer city. (Available from Safe City Committee, City of Toronto Planning & Development Dept., 18th Floor, East Tower, City Hall, Toronto, Ontario M5H 2N2).

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U.S. Army. (1987). Individual protective measures against terrorism (Field Circular 100-37-2). Leavenworth, KS: U.S. Army Command and General Staff College.

U.S. Department of Justice. (1994). Criminal victimization in the United States, 1992: A national crime victimization survey report (NCJ-1451125). Washington, DC: Bureau of Justice Statistics.

U.S. National Park Service. (1978). National urban recreation study. Washington, DC: U.S. Government Printing Office.

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Van Der Voordt, D. J. M. (1988). Spatial analysis of crime and anxiety-Research data from the Netherlands and implications for design. In J. Sime (Ed.), Safety in the built environment (257-269). London: E. & F. N. Spon.

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Walker, J. (1981). Physical planning and crime in Canberra. Canberra, Australia: Australian Institute of Criminology.

Waller, I. (1979). What reduces residential burglary: Action and research in Seattle and Toronto. Paper presented at the Third International Symposium on Victimology, Muenster, West Germany.

Waller, I., & Okihiro, N. (1978). Burglary: The victim and the public. Toronto: University of Toronto Press.

Wallis, A., & Ford, D. (Eds.). (1980a). Crime prevention through environmental design: An operational handbook. Washington, DC: U.S. Dept. of Justice, National Institute of Justice.

*This handbook is an operational presentation of crime prevention through environmental design. (It) discusses methods of designing or redesigning buildings and neighborhoods to reduce crime and the fear of crime.**

Wallis, A., & Ford, D. (Eds.). (1980b). Crime prevention through environmental design: The commercial demonstration in Portland, OR. Washington, DC: U.S. Dept. of Justice, National Institute of Justice.

Describes an attempt to reduce crime and fear in a particular setting (Portland, OR) by reducing criminal opportunity while simultaneously fostering positive social interaction. This report is lengthy and was not conclusive in its support of the theory in question. Rather, it recommended further testing.*

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*This book is intended for 'all those who earn a living by modifying and maintaining the environment.' The book is more than just a design guide for architects, planners, managers, and engineers; its collected articles constitute one of the best surveys of the physical, social, criminological, and political aspects of vandalism. Contributions are organized in four parts: the 'social background', the 'designer's responsibility', 'vandals with power', and 'coping with vandalism.' **

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Warr, M. (1984). Fear of victimization: Why are women and the elderly more afraid? Social Science Quarterly, 65, 681-702.

Warr, M. (1985). Fear of rape among urban women. Social Problems, 32, 238-250.

Warr, M. (1990). Dangerous situations: Social context and fear of victimization. Social Forces, 68, 891-907.

The author investigates how people perceive cues and signs which alert them to danger. Night, or darkness, novelty of the situation, and being alone (vs others who might offer assistance being present) were examined. They were found not to be

frightening because of what they are, but because of what they represent. Thus, "they are signs of frightening things". Interestingly, presence of others can have distinctly different effects. The author found that depending upon who the 'others' are, their presence can have a reassuring or an alarming affect. This work warrants further investigation by those interested in the perceptions and reactions of the public, particularly women.

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This article, despite its title, does not involve nature in the sense of the out-of-doors, but rather settings natural to shoplifters (e.g., retail stores). The authors conducted walking interviews with 17 expert and 17 novice shoplifters. As they walked through the establishments the offenders thought aloud, explaining their analysis and strategy development as they went. The study found that expert shoplifters "were deterred by strategic difficulties, e.g., size of the item. The experts, unlike the novices, viewed store personnel and security devices (intentional deterrents) as overcomeable obstacles. The latter group decided to abort shoplifting in the face of such deterrents. These findings are important in their correlation with studies such as those on burglary which compare perceptions of burglars of varying degrees of experience. The reader is lead to conclude that deterrents of differing kind and degree affect the range of offenders in differing manners. Thus a layering of defenses or detterents is necessary to have the greatest success.

Webster, W. (1986). Crime in the United States-1985. Washington, DC: U.S. Government Printing Office.

Weidemann, S., Anderson, J., O'Donnell, P., & Butterfield, D. (1981). Resident safety: Research and recommendations for Longview Place Anti-crime Program. Urbana: University of Illinios at Champagne-Urbana, Housing Research and Development Program.

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Weir, A. (1973). The robbery offender. In F. Feeney & A. Weir (Eds.), The prevention and control of robbery, 1. Davis, CA: University of California.

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West, W. (1978). The short-term careers of serious thieves. Canadian Journal of Criminology, 20: 169-190.

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immediate environment are important to juvenile house burglars in their selection of targets." Building on similar studies, significant differences were again found between criminals and the non-criminal control group. Burglars, being consistent as a group and also consistent with adult burglars in other studies, found "the presence of cover (surveillability), cars (occupancy), and dogs or alarms...as affecting their choices of houses" to offend. However, locks appeared to be "influential in deciding how to break in, but not in whether or not to do so."

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About the Authors

Michael is a Ph.D. student in the Dept. of Forestry. He has developed and applied methods to study crime in urban parks since 1991. As part of this project he will be working on a dissertation. He has 2 scientific publications and 3 years professional design experience as a Landscape Architect. He holds the Bachelors of Science and Masters degrees in Landscape Architecture (West Virginia University and Texas A&M University, respectively).

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